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USSR Report

TRANSPORTATION

No. 21

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AUTOMOTIVE

RSFSR OFFICIALS DISCUSS BUS SERVICE, HIGHWAYS

Minister Interviewed

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 20 May 80 p 3

[Interview with Minister of Automotive Transport of RSFSR Yevgeniy Georgiyevich Trubitsyn by A. Shifrin]

> [Text] Letters from readers are a clear barometer. As early as January the article "The Passenger and Buses" was published from the comments of readers' letters. But the editorial mail brought newer and newer questions on operation of public transport. And the editors have now decided to request the Minister of Automotive Transport of the RSFSR Yevgeniy Georgiyevich Trubitsyn to answer them. Eighty million persons utilize buses daily in the republic. After all, transport, including the trolley, streetcar and subway, haul 130 million persons per day. In other words, almost two-thirds of these people depend on bus operation. But not only the quantitative aspect--how many are transported, but also the qualitative aspect--how to serve passengers, is important.

[Question] Buses clearly lag behind today's comfort requirements. Passengers complain that the carriage part of the vehicle is uncomfortable--if all the seats are filled and several persons must stand, it is difficult to go from door to door. And the noise that the bus creates on the streets is perhaps a little less than that of a truck.

[Answer] You can imagine yourself, let us say, that the Ministry of the Aviation Industry begins to produce aircraft without coordinating their specifications with Aeroflot? No. But unfortunately this is what happens with us. All our requests and desires remain unconsidered by automotive builders to a significant degree. For example, we need a medium-capacity city bus. They send us either small PAZ or large LIAZ. And all this is because there is no general client, not a single department responsible for a unified policy in bus construction.

The lag of bus design behind the level of modern requirements is also explained by the poor state of city streets. They are two times worse than highways. As a result the bus breaks down almost every week. City roads are especially poor in Gorkiy, Novosibirsk, Kazan', Sverdlovsk, Chelyabinsk, Ufa and Leningrad.

And what does it mean if the bus makes a detour? The regularity of trips is disrupted. There are additional inconveniences for passengers. What is the answer? Either increase the strength of the vehicle and make a unique semi-tank or bring the roads in order. The recent decree of the party and government to improve road management should decisively affect the attitude of local authorities to maintain and repair the city streets.

[Question] Thus, Yevgeniy Georgiyevich, the comfort of buses does not depend on you. But the regularity of the schedule and service skills do depend on you? Scientists state that a trip on urban transport during "peak" hours is almost equal in the mental load to the working day at a plant. Sociologists have calculated that an increase of the length of a trip in public transport by ten minutes leads to a two-three percent reduction of labor productivity.

[Answer] The Ministry has done a lot during the past few years. It is sufficient to say that the fleet of vehicles will increase by 11-14 percent annually. For comparison, I shall present data on trolley buses and streetcars--the growth comprises a total of two-three percent here. The need for drivers and for passenger service skills has increased.

Introduction of a vehicle traffic control system will yield a lot. For example, regular scheduling comprised 96 percent in Omsk prior to its introduction, i.e., almost an ideal pattern. The system was introduced and suddenly the figure dropped to 60. What is wrong? A rapid analysis was made--the previous data were clearly "faked." Real regularity of 93 percent has now been achieved by means of the operational control system. This system is now in operation in 223 cities.

A lot also depends on the initiative of transport workers. An additional and sufficiently large numberof buses are sent out onto the line during "peak" hours in Kaluga. The vehicles are recruited from a specialized column engaged in delivery of workers to enterprises in the mornings. A so-called "broken" schedule has been introduced. What does this mean? The drivers work four hours in the morning and four hours in the evening when transport is experiencing "peak" loads. Add Malysh buses to this. They transport parents and children in the morning and evening, doing away with the inconvenience of their travelling in overfilled transport.

[Question] And even so passengers complain and their complaints are valid.

[Answer] The following should be said not for justification, but to understand our difficulties: for example, the population of Moscow has increased fourfold since 1917, but the number of passengers has increased 19 times. This situation is typical for many cities. Of course, the prospects for the growth of passenger turnover is included in complex transport schemes. But they are clearly not in step with the rates of housing construction. Only buses can help out in this situation. But the loads on it increase excessively with all the ensuing inconveniences to people.

It is recommended that we increase the number of vehicles on the routes. But first, you can't send out more buses to the line than are available in the pools. Second, saturation of city streets with transport has already led to the fact that the average bus speed has actually been reduced to 16 kilometers per hour instead of 30-35 kilometers. Moreover, the maximum number of vehicles is not needed during daytime hours.

What is the answer? We feel that the answer, along with an increase of vehicles, is allocation of specific traffic strips on the streets only for public transport and also an introduction of staggered beginning and ending of the working day at enterprises, in institutions, organizations and academic institutions.

And finally, we must have the required number of spare parts for timely vehicle repair.

[Question] However, there is the work experience of V. Shkilev on bus line 26 in Gorkiy. Having used the brigade contract method, he and his colleagues managed to fulfill the traffic schedule. You could set your watch by the vehicles of Shkilev's brigade. Is there not an enormous reserve in the experience of Gorkiy workers to improve service?

[Answer] The experience of Vasiliy Fedorovich Shkilev's brigade is difficult to overestimate. It was no accident that he was awarded the State Prize of the USSR. Shkilev has now gone further and has applied an even more efficient form of organization of labor--the route contract. A total of 300 collectives has now converted to the brigade contract method throughout the ministry.

[Question] Is this a lot or a little? Here are some figures. Last year more than 16 million schedules were interrupted throughout the entire ministry, i.e., 1.5 billion passengers suffered in the direct sense.

[Answer] I must say that the brigade contract is being introduced too slowly. Three hundred collectives is very little. Quite recently we had an unpleasant conversation with the managers of the motor transport administrations on this question. Rigid requirements were placed on them--to become involved in introduction of leading organization of labor on the basis of Shkilev's experience without delay.

[Question] The letters to the editor also contain many complaints from residents of Kareliya, Belgorod and Tyumen' on poor operation of buses.

[Answer] We know about this and we are taking measures to eliminate the deficiencies. The reasons for this situation are clear. First, insufficient buses are sent out to the line due to a lack of drivers. For example, up to 25 percent of vehicles stand idle in the pool in Yaroslavl'.

The ministry trains 20,000 drivers annually and 15,000 are retrained. Unfortunately, very many , despite good wages, leave. People are interested in sociocultural service: housing, kindergartens and good recreation. We are still lacking in these amenities. The ispolkoms of the local Soviets of working peoples deputies could help us a lot. But here we frequently encounter the agency approach--you do not belong to us. But who do the passengers belong to?

At Ul'yanovsk we created a combined central dispatcher station. It was able to do a lot: passenger flows were studied, a number of express routes were introduced and suprise inspections were made to check the work of drivers. But these are tactical questions. It is difficult to solve the problems as a whole due to the agency dispersion of urban transport.

[Question] Yevgeniy Georgiyevich, there are 1.5-2 times more passengers than the norm per square meter of bus area at Orenburg and Smolensk. The residents of Kemerova, Rostov, Saratov and Tomsk expend 1.5-2 times more time on a trip than the norm: instead of 35 minutes, it is 65. What do you have to say about this?

[Answer] This is poor. What are the reasons? The same ones. Frequent breakdown of vehicles, poor repair of them and failure to observe discipline on the route. We quite frequently observe how one vehicle after another comes to the stop and then we have to wait a long time. We call this phenomenon "stretching." The driver of the first bus intentionally drags out the time in order to collect more passengers and to earn more receipts. But if he slows down somewhere, then later, trying to make up time, he speeds up. And this leads to premature breakdown of the vehicle.

An finally, there are highway transport accidents. It's a shame to admit it, but this fact is the fault of a drunk driver for every eighth case. The bus enterprises at Starorusskiy have set a unique record--every sixth driver came to work drunk. As they say, there is nowhere further to go.

I am talking about this frankly and negatively since the struggle with drunkenness and violations in transport is a common problem. We are counting on the support and help of local party committees to intensify educational work among the collectives of bus enterprises.

[Question] The so-called problem of "freeloaders" has also been raised in readers' letters.

[Answer] Statistics confirm that up to 20 percent of passengers ride without tickets during "peak" hours.

[Question] But not all these people are obviously persistent violators of order.

[Answer] Persistent or not, but the loss is enormous. The five kopecks which a passenger pays for a bus trip corresponded at one time to 3.3 kilometers of route. This was the real average length of the trip. A passenger now travels more than nine kilometers for the same five kopecks. Urban transport has become more comfortable (although not as much as one would like) and this means the vehicle is more expensive. The expenses for maintenance and operation of the buses also increase accordingly.

Therefore, every uncollected five kopecks has a negative effect on the economy of the bus fleets, depriving them of the possibility, for example, of timely repair of vehicles.

I am not talking about the social aspects of this problem. What will be the result? A person will ride free once and get away with it and a second time and get away with it. And he will become used to the idea that he can ride free.

[Question] But there are checkers. They fine freeloaders.

[Answer] There are. But try to fine somebody during "peak" hours. This is practically impossible. Moreover, the amount of the fine--one ruble--will hardly deter the freeloader from riding free. After all, he is also involved in "economics"--figure which is more advantageous, to pay one ruble every two-three months or pay five kopecks every day?

[Question] However, many ride without tickets only because the automatic coin box accepts a strictly defined set of coins. But what if the passenger has a 10 or 15 kopeck coin? There is nowhere to get change.

[Answer] True, all these inconveniences exist. We have now prepared an experiment which we plan to check at Tula. Its essence is this: having bought a ticket for four kopecks, an urban resident will be able to use it for travel on any public transport. This will permit us to do away with a number of different types of automatic ticket machines.

The ministry receives many letters with different suggestions. Most insist on some increase of income tax so as to make a trip on public transport free.

There is another variant--to introduce compulsory payment for workers, white collar employees and students: they receive a single monthly ticket each month when they are paid. Specialists have calculated that its cost will comprise three rubles 60 kopecks for cities having a subway, three rubles 20 kopecks in cities where there are buses and streetcars and two rubles 60 kopecks in the remaining cities and villages. Many categories of residents will generally be freed of payment in this case.

It is difficult to say whether this procedure or some other will be adopted. One thing is clear: life with its increasing speeds and increasing passenger flows persistently requires an improvement of urban bus operation and a separate system of payment for a trip.

Deputy Minister Comments

Moscow GUDOK in Russian 17 Jun 80 p 4

[Article by Deputy Minister of Highways of the RSFSR A. Nadezhko]

> [Text] In the recently published decree of the CPSU Central Committee and the USSR Council of Ministers "On measures to improve construction, repair and maintenance of highways in the country," it is planned by 1990 to mainly complete development of a reference network of major highways in the USSR. The Deputy Minister of Highways of the RSFSR A. Nadezhko discusses the status of the highways and further development in a conversation with APN correspondent M. Kubeyev.

The role of highways has increased during the past few years as a result of intensive growth of industry and development of new regions. In other words, their economic and social significance has increased. But motor transport can really realize its capacities only in the presence of a branched network of modern highways.

It should be said that development of our highway system began during the years of the first five-year plans. There were more than 40,000 kilometers of roads in the RSFSR prior to World War II. Many of them were put out of commission during the war. Time was required to restore them.

The pattern is now essentially different. The organizations of the Ministry of Highways of the RSFSR alone annually introduced approximately 10,000 kilometers of new paved routes into operation during the 10th Five Year Plan. By the end of 1979 the republic already had 311,000 kilometers of general-purpose paved highways.

However, the needs of the national economy for transport shipments of freight will increase more rapidly than will development of the highway system. Freight traffic turnover and traffic intensity on major transport routes increased with regard to the development of territorial-industrial complexes and the appearance of new towns on the map of the country. For example, there are already routes where traffic intensity exceeds 30,000 vehicles per day.

The adopted decree is also devoted to development of transport highways in the near future.

It is planned to introduce 80,000 kilometers of highways throughout the country and to reconstruct a number of major routes during the 11th Five-Year Plan. There is every basis to assume that all the cities of Siberia and the Far East, except Yuzhno-Sakhalinsk, Petropavlovsk-na-Kamchatke and Magadan, will be linked to the European part of the republic by modern highways within 2-3 five-year plans.

Improved roads will provide reliable communications between the oblast and kray centers of the autonomous republics and also with Moscow.

The major routes under construction will have 6-8 lanes of traffic with median strip, intersections at different levels and the latest control systems.

Three of the most important major highways in the European USSR are now being reconstructed. All three go beyond the border. The first extends from Moscow through Kiev and Kishinev to Rumania, the second, best well known, extends from Moscow through Minsk to Poland and the third extends from Moscow through Leningrad to Finland.

Besides these major routes, it is planned to reconstruct three other international highways located in Siberia. They include the highways from Irkutsk, Bratsk and Ulan-Ude. All three extend to fraternal Mongolia.

Highways have enormous significance to expand our mutually advantageous economic ties with the fraternal socialist countries. Thousands of tons of goods travel over them hourly in both directions. Our specialists are fruitfully cooperating with their colleagues from the fraternal socialist countries in the interests of further development of international highways.

Highways should correspond to modern requirements and should last for many years. The decree of the CPSU Central Committee and the USSR Council of Ministers aims us toward this.

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CSO: 1829

BRIEFS

TRACTOR PRODUCTION--Approximately 1,000 tractors are awaiting shipment from the Volgograd Plant. The shipment schedule has already been interrupted for more than two months. Why does this occur? The Deputy Chief of the Volgograd Division S. Babakhanyan wants to blame all the misfortunes on a shortage of flatcars. The situation appears otherwise upon close inspection. The equipment shipment schedule was realized by 108.7 percent in January, and then the undershipment comprised 221 flatcars in February and 248 flatcars in March. And it turns out this is not because there were no flatcars in the division. An average of 500 empty flatcars instead of 400 according to the norm arrived daily in February. There were enough of them with local freight. There were 507 empty flatcars in March with the same norm of 400 and there were 539 flatcars for local freight with a daily plan of 520. What is wrong? Why is the shipment of tractors being interrupted? Because local freight is being delivered slowly here: many flatcars are involved in it. They do not hurry to unload it, assemble the freed rail cars and deliver them to load those same tractors. For example, it is no accident that the circulating norm of flatcars in March (1.7 days) doubled at the Volgograd division. And in April the railroad workers managed to go into debt for more than 200 flatcars to the tractor builders. The situation is this: some managers of the traffic service send flatcars for tractor shipment on an urgent basis, designed for shipment of truck-tractor trailers from the Rtishchevo Division, trolley buses from the Saratov Division and inactive freight from the Yershov Division. This is of course no way out of the situation. "Firefighting" measures are not necessary, but thoroughly thought-out operations and a thrifty approach to the use of rolling stock and shipment of all freight are required. [Text] [Moscow GUDOK in Russian 7 May 80 p 1] 6521

GRAIN SHIPMENTS--The grain harvest is in full swing in Kyurdamirskiy, Akhsuinskiy and Shemakhinskiy rayons of Azerbaijan. The concerns of the railroad workers of Kyurdamir Station have increased. They have dispatched approximately 200 rail cars of grain from the old harvest in order to release the silos of the grain receiving terminals. The first 20 rail cars of grain from the new harvest have been dispatched. The station collective is preparing to celebrate Railroad Workers Day in a worthy manner. The monthly plan is being overfulfilled and the idle time of rail cars for loading operations has been reduced by 0.2 hours compared to the norm and statistical loading has been increased by 0.8 ton compared to the task. The construction materials, fertilizers and agricultural machinery arriving for rural workers are not being held in the rail cars. The shifts of station duty officers of B. Shirinov and A. Mamedov are achieving high results. [Text] [Moscow GUDOK in Russian 20 Jun 80 p 1] 6521

MOTOR TRANSPORT ASSOCIATION--The Council of Ministers of the RSFSR has confirmed the regulations on a motor transport production association (combine), coordinated with Gosplan of the USSR, Minfin [Ministry of Finance] of the USSR and Goskomtrud [State Committee for Labor and Social Problems] of the USSR, having applied its operation to all such associations (combines) regardless of their agency affililiation. The indicated association (combine) is a unified production-economic complex containing motor transport, automotive repair and other production units (they are not legal entities and the regulations on a socialist state production enterprise does not apply to them). The motor transport production association (combine) is the main (primary) unit of motor transport; its activity is based on a combination of centralized management and economic independence and initiative of the association itself. Under the supervision of a superior body, it carries out its activity according to the plan for economic and social development on a cost-accounting basis, has an independent budget and is a legal entity. Separate independent enterprises and organizations which enjoy the rights provided by the regulations on the enterprise may be subordinate to it in necessary cases, by decision of the ministry (agency) of the USSR, RSFSR or the Mosgorispolkom. In this case it acts as a superior body with respect to them and can completely or partially centralize fulfillment of their separate production-economic functions. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 12, 1980 p 16] 6521

TRUCK PRODUCTION--Minsk, 16 Apr 80--The collective of the BelavtoMAZ Production Association is approaching celebration of Lenin's birthday with good production indicators. The semiannual program on production of large-capacity motor vehicle trains, whose freight capacity with semi-trailer-container carriers is 32.5 tons, will be completed by that significant date. They are designed for intercity and international shipments. The powerful trucks with the Minsk mark are "laboring" successfully at Odessa, Kiev and Leningrad. "Our plant," says the chief designer of the association, winner of the State Prize of the USSR M. Vysotskiy, "is preparing to produce trucks of the new family MAZ-5336. The latest advances of worldwide motor vehicle construction and the results of our own research have been included in the design. This will reduce the laboriousness of preventive maintenance, will prolong the service life of assemblies and parts and will improve the working conditions of the drivers and traffic safety. The plan is already producing vehicles with a warranty of 300,000 kilometers without major overhaul. The new trucks will be distinguished by even greater durability." [Text] [Moscow PRAVDA in Russian 17 Apr p 2] 6521

ALL-TERRAIN VEHICLE--Yoshkar-Ola, 26 Apr--The all-terrain vehicle born within the student design office of the Mari Polytechnical Institute imeni M. Gorkiy is capable of travelling over deep snowdrifts, swampy terrain and water obstacles. This is a unique hybrid of an aerosleigh and air cushion vehicle. The new machine can lift off the ground if an obstacle must be surmounted. It can be used on rivers during ice movement and the freezing period. The all-terrain vehicle with capacity of 1.3 tons, developed by order of oilfield workers, develops a speed up to 65 kilometers per hour. [Text] [Moscow PRAVDA in Russian 27 Apr 80 p 3] 6521

TRUCK DELIVERY--Birobidzhan--I have decided to share a thought which excites our collective. This February, 200 KamAZ trucks were allocated to Khabarovskiy Kray. Since the railroad flatcars were not big enough for these giants, more than 200 drivers (with backups), including 10 experienced drivers, were sent to Naberezhnyye Chelny. They took delivery of the vehicles and drove them through the entire country at their own speed to the edge of the earth. It is difficult to calculate how much this cost the state if one takes into account that the average wage of a driver is 250-300 rubles per month, and a one-way air ticket is 140 rubles, plus the hundreds of tons of fuel and depreciation during 10,000 kilometers. The trucks leave one-third of their legal tire mileage on this test area. And how many of the engines break down: after all, there will not be the normal running-in on such a long road. But the long-awaited trucks finally arrived and there is hardly anyone who is not glad. All our sideboard KamAZ trucks are used in road construction--for gravel transport. The width of the roadbed is only 6-7 meters and a large vehicle with trailer can hardly turn around. And during the season of bad roads you cannot generally travel in a KamAZ--the local Soviets have forbidden traffic of trucks weighing more than 10 tons on washed-out roads. So that Zil-130 gasoline-fueled trucks are more appropriate in the Far East, even with all the prestige of the KamAZ vehicles. Do the responsible officials who ordered the KamAZ vehicles for us think about the geography and about the economic consequences of their decisions? [Text] [Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 4 May 80 p 2] 6521

DIESEL BUS OUTPUT--The collective of the All-Union Experimental Design Institute of Bus Construction at L'vov has fulfilled the honorary order of Olympiad 80. Assembly of a highway liner which will accompany the baton of the olympic flame from Athens to Moscow has been completed here. The bus, equipped with a powerful diesel engine and hydromechanical gearbox, hardly pollutes the air with exhaust gases and is distinguished with increased maneuverability and smoothness of ride. The large coach with large metal-coated windows is provided with everything necessary for normal operation and relaxation of the information-propaganda service of the Olympic organizing committee. Seats and desks have been comfortably arranged and the air conditioners maintain a constant microclimate. Color televisions with video tape recorders and radios have been installed in each of the three compartments of the coach. [Text] [Kiev PRAVDA UKRAINY in Russian 18 May 80 p 2] 6521

ZHIGULI PRODUCTION--The Zhiguli family has been supplemented. Serial output of the VAZ-2105 vehicle has begun at the Volga Automobile Plant. Compared to its predecessors, it is more comfortable and easier to drive and consumes less fuel. The enterprise collective began preparation to certify the automobile of this model with the State Symbol of Quality. [Text] [Riga SOVETSKAYA LATVIYA in Russian 21 May 80 p 2] 6521

KIROVETS TRACTORS--Applause broke out when this mighty machine left the main conveyor belt. A decal that said "This is the 200,000th Kirovets" was attached to the tractor radiator. Steppe hero, young test driver N. Mezentsev is behind the wheel. The well-known Stavropol' driver, Hero of Socialist Labor P. Bashtovoy receives the tractor from him. The keys to the vehicle and the technical certificate have been turned over to him. A crowded meeting was held at the Kirovskiy Zavod Association on the occasion of this significant event. The collective of the Leningrad Kirovskiy Zavod Association is struggling persistently to accelerate development of new equipment. The world's largest serial plant of powerful tractors has been created. The main conveyor operates like a clear continuous system. The new labor victory opens up new horizons to the Kirov workers. The serivce life of the tractor must be brought up to 7,000-8,000 hours during the next five-year plan. This program is being implemented in creative cooperation with scientists and collectives of the Yaroslavl' Association Avtodizel' and Goskomsel'khoztekhnika. The Kirov workers are assisting the workers of the Pavlodar Tractor Plant, where output of tractors with engines having capacity of 330 horsepower will be organized. [Text] [Moscow IZVESTIYA in Russian 31 May 80 p 1] 6521

TRUCK-TRAIN PRODUCTION--Yelgava, Latvian SSR--The last Olympics truck-train has come off the conveyor line of the RAF Minibus Plant imeni 25th CPSU Congress. The order of the games organizing committee was fulfilled ahead of schedule: twenty 48-seat truck-trains will soon begin to travel the routes of the Olympic village. Approximately 700 vehicles of different models and modifications were manufactured by the workers of the enterprise--the official supplier of the 22nd Summer Olympic Games. Comfortable Latviya automobiles will accompany the athletes carrying the flame from Mt. Olympus in Greece to Luzhniki Park in Moscow. And their "legal brothers" --the RAF electric cars--will be on the route of the marathon run and the walking race. Racks to transport the bicycles and spare parts for them have been equipped in the bicycle maintenance vehicles. The minibus coaches designed to service the workers of the MOK [Moscow Olympic Committee], the Olympic Organizing Committee and members of international sports federations have been equipped with control consoles, dictaphones and typewriters, a radio station, color television sets and other apparatus. [Text] [Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 28 May 80 p 2] 6521

CSO: 1829

RAILROAD

UDC 658.155:656.2

KHOZRASCHET SEEN AS KEY FOR LABOR IMPROVEMENT

Moscow ZHELEZNODOROZHNYY TRANSPORT in Russian No 6, Jun 80 pp 54-59

[Article by N. Ya Kleshch, candidate of economic sciences: "Cost Accounting--Important Means for Labor Improvement"]

[Text] Much has been done in all sectors of the national economy to accomplish the party's economic and social policy during the past period of the 10th Five-Year Plan. This policy's loftiest goal is an unabated improvement in the material and cultural standard of the Soviet people. The workers on the country's steel mainline routes also made a real contribution to overall success during 4 years of the 10th Five-Year Plan, railroads carried 1.8 billion tons, or 13.6 percent more than during the corresponding period of the 9th Five-Year Plan. Also, the following increased: freight turnover by 17.1 percent, passenger turnover by 12.1, transportation volume in adjusted ton-kilometers by 16.6, income from shipments by 16.8, and net profit by 5.5 percent.

Recently, however, there have been significant difficulties and serious shortcomings in rail operations. As a result, the national economy's requirements for rail shipment were not fully satisfied. Tasking on the basic technical and economic indicators of rail operations were not fulfilled in 1979, and several were worse than in 1978. Thus, the plan for general dispatch of freight, especially the most important freight, for freight and for passenger turnover, and profit was not fulfilled, freight car turnaround time was delayed, and a rise in labor productivity and a decline in shipment production cost did not occur. Efforts to increase equipment reliability and improve the shipping process were insufficient.

Also, having failed to fulfill the plan for the volume of shipments in adjusted ton-kilometers by 2.2 percent, railroads significantly overspent operating capital in opposition to the plan and in opposition to the right to accomplished shipping volume. For these reasons, as well as because of large nonproductive outlays and the loss of income, the production cost of shipments increased

2.2 percent throughout the railroad network, and the net profit plan was underfulfilled by 8.9 percent. Although more than half the divisions overfulfilled the net profit plan by 1.4 percent, overall all divisions underfulfilled this assignment by 19 percent.

Based on 1979 operating results, sectorial line enterprises overall achieved savings in operating capital and above-plan profit from subsidiary and ancillary activities. However, 10.2 percent of the total number of these enterprises did not fulfill the plan assignment for profit from subsidiary and ancillary activities, and 11.4 percent had losses mainly due to overexpenditure of operating capital. More than half the total losses occurred at enterprises within the Far Eastern, Western Kazakh, Eastern Siberian, South Urals, West Siberian, Sverdlovsk, and Kemerovo railroads. An especially significant number of unprofitable enterprises, in relation to the overall number, was 25.8 percent on the Kemerovo Railroad, 23.6 on the Krasnoyarsk Railroad, and 22.5 percent on the Western Kazakh Railroad.

In spite of the established preferential procedure for generation of incentive funds at the cost of profit withholding taxes for 1979, due to failure to fulfill plan assignments on fund-generating indicators, funds generated were less than those planned and less than the actual assets for the preceding years of the five-year plan. Thus, the material incentive fund at the cost of profit withholding taxes per capita of the overall railroad quota in 1979 is 29 percent less than it was in 1974 and 1976.

Unsatisfactory results from railroad operations in 1979, nonfulfillment of bonus payment indicators and conditions, as well as several cases where the size of material incentive funds was insufficient, negatively impacted upon the absolute and the relative sizes of the bonuses for engineering and technical workers and for employees. Thus, throughout the railroad network, given a slight increase in average monthly wages in 1979 as compared to 1974, bonuses at the cost of the material incentive fund decreased 27.7 percent for engineering and technical workers and 28.3 percent for employees. The ratio of the bonus in the overall wage dropped from 16.1 to 11.4 and from 15.9 to 11.1 percent, respectively.

The USSR State Economic and Social Development Plan and USSR State Budget for 1980 assigned railroad workers great and important tasks to insure more complete and timely satisfaction of the national economy's requirements for rail shipments. As compared to 1979, it envisions an increase in freight turnover of 4.8 percent, passenger turnover 2.4, profit 9.3, labor productivity 2.9, and reduction in shipment production cost by 2 percent. Intense assignments have been established to improve the use of rolling stock. Here, 60 percent of the freight turnover increase is required on the Far East, Siberian, Urals, and Volga railroads, which requires taking additional measures to improve the way the shipping process is organized.

In order to create a firm foundation for a successful start of the 11th Five-Year Plan, 1980--the year of preparations for the 26th CPSU Congress--must become a year of shock labor, a year of work in the Leninist, the

Communist, manner, a year for creative use of the best collectives' leading know-how. Widely-developed socialist competition for successful completion of the 10th Five-Year Plan facilitates this. Now, efforts by all transport collectives, by every railroad worker, are directed towards fulfillment of the planned tasks of socialist pledges and consistent implementation of the party's course to improve work effectiveness and quality.

Accomplishment of the measures envisioned in the CPSU Central Committee decree "On Further Improving the Economic Mechanism and Tasks for Party and State Organs" and the CPSU Central Committee and USSR Council of Ministers decree "On Improving Planning and Intensifying the Influence of the Economic Mechanism to Raise Production Efficiency and Work Quality" will be of decisive significance for successful completion of the 10th Five-Year Plan.

The Role of the Economic Mechanism

Recently, this magazine published articles describing the essence of Ministry of Railways proposals on the special features for accomplishment by the railroads of the aforementioned decrees. They also paid requisite attention to proposals by specialists and scientific workers on specific problems of improving the economic mechanism in transportation.*

Presented in some articles was a definition of the essence of the economic mechanism. However, relative to the railroads, the definition of the economic mechanism as the aggregate of the forms and methods of planning and economic incentive, the organization and management of the shipment process, cannot be considered correct. In our view, we must begin with the general essence of the economic mechanism--a system of economic levers and incentives, of organizational, technical, and administrative measures, of the laws and the norms of economic rights, and of other levers for practical assurance of accomplishment of state plans for economic and social development, which are a vital instrument for realization of the party's economic policy. Necessary here is economic, optimal use of the productive and scientific-technical potential of a country of developed socialism to improve production efficiency and work quality, to achieve high national economic results. In addition, the economic mechanism must be looked upon as a means to guarantee the creative initiative of the broad workers' masses to fulfill state and counter plans, as well as socialist pledges.

The achievements of the sectors of the national economy and of their associations and enterprises only can objectively be evaluated given proper selection of the system of planning indicators and cost accounting measures by management echelons. Here, one must keep in mind that many years of rail transportation practice convincingly demonstrated the advantage of using adjusted physical indicators rather than value indicators. Therefore, adjusted ton-kilometers, freight turnover in tariff ton-kilometers, and not net output (wage fund, social insurance deductions, and profits), should be the basic operating indicators. The correctness of this approach convincingly is demonstrated by the fact that, in the long run, outgoing freight, freight turnover, adjusted ton-kilometers, and labor productivity in adjusted ton-kilometers per worker based on shipments, rather than net output, will grow at the highest rates since labor productivity in rubles of per capita net output will be below the 1970 level.

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*See ZHELEZNODOROZHNYY TRANSPORT, 1980, No. 1, 2, 3.

In our opinion, the present system of planning indicators and cost accounting measurements of basic operations of the railroads and of their enterprises in principle does not require major changes, but the method of planning itself must be improved, the substantiation of plan assignments must be reinforced, the unconditional balancing of all plan sections must be guaranteed, and the requisite physical and financial reserves created.

A requirement for further development of cost accounting based on five-year plan tasks and long-range economic norms, which insure an increase in the resources remaining at the disposal of enterprises, associations, and sectors, depending upon improvement in the final results of their economic activities, given a simultaneous improvement in the withholdings of resources for the state budget, is emphasized in the CPSU Central Committee and USSR Council of Ministers decree. In essence, this also assumes the great significance and leading role of cost accounting in the overall economic mechanism, since it remains the basic economic method of socialist management. Its development means improvement in the practical use of cost accounting principles taking into consideration special features in organization of the production and financial activities and end results of the operation of railroads, divisions, and sectorial line enterprises. Here, one begins with the essence of cost accounting, which reflects the economic relations between the state and the enterprise (association, sector), among enterprises in a single sector, as well as between the enterprise and the collective.

Allocation of resources from the production development fund for enterprise use is required to combine a further intensification of centralized, planned management with an expansion of enterprise rights, economic independence, and initiative. It is known that centralization of several sectorial line enterprise economic functions in the divisions (credit, monitoring wage fund expenditure, and others) has proven itself, but the necessity and advisability of allocating certain amounts from the development fund to the enterprises also have come to light.

Relative to the principle of recoupment, it should be underscored that it is impossible to guarantee the viability of economic management methods without a continual effort to improve price formation, the procedure for generation of income from shipments, and determination of the right to operating costs. In this connection, the proposal to increase the level of railroad tariffs for freight shipment by at least 10 percent is correct.* Here, it is important to remember the significant reduction in overall, and especially in estimated, profitability of the railroads, which were 13.8 and 8.1 percent in 1970, 10.3 and 4.5 in 1975, and 7.4 and 1.9 percent in 1979, respectively.

In addition, it is necessary when accomplishing freight tariff reform to place special attention on the level of tariffs for freight shipment in refrigerated rolling stock and guarantee sufficient profitability of such shipments, which are unprofitable at the present time. It also is advisable to permit the Ministry of Railways to establish temporary higher tariffs for freight shipment on certain routes in the network, taking the throughput and carrying capacities of such routes into account. Also, it is necessary, when drafting refined annual plans, to establish a list of routes via which, due to saturated throughput and carrying capacity over the shortest distances, circuitous routing should be used to accomplish the shipment plan, as well as a list of well-equipped routes to which, from a national economic standpoint, it is economically advisable to divert freight in spite of the resultant increased shipping distance. Here, hauling charges should be based on actual rather than on the shortest distances.

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*See ZHELEZNODOROZHNYY TRANSPORT, 1980, No. 1

It is known that the railroads suffered great losses in freight resources and income due to above-plan car down time on consignor and consignee approach lines. True, like the railroads, they pay significant fines for violation of shipment conditions. However, the difference between the fines the railroads receive and pay goes into the budget as separate payments.

In our view, the difference between the fines railroads receive and pay for violations of shipment conditions need to be included in the overall profit and fulfillment of the Ministry of Railways' and the railroads' profit plan needs to be evaluated, taking received and paid fines into consideration. This reinforces the influence of fine sanctions to guarantee improved use of freight cars.

USSR Gosbank and USSR Stroybank institutions need to fine consignors and consignees for above-norm down time of cars and containers and technical (volumetric) underloading of freight cars according to the second group of payment priorities so that the aforementioned fines are not "eternal" debts, but actual financial results.

The established manner of computing estimated prices and generation of income from division shipments, in the main, is followed by all railroads. A larger amount of income than called for in ministry regulations is reserved only on the West Siberian and Sverdlovsk railroads, as the divisions in their management form the estimated prices. In spite of this, the principle of estimated price formation insures the profitability of initial, final, and en route operations and they should be guided by this when refining estimated prices in connection with significant changes in the amount of operating capital.

Things are somewhat different with generation of railroad income from shipments in direct communications. Analysis showed that the actual rates of 20 and 30 kopecks per loaded and unloaded ton on a majority of the railroads do not insure the profitability of start-to-finish operations.

In our view, the proposal to set rates for initial and final operations from their integrated value computed on the basis of two-rate tariffs also does not solve the problem. More proper is a proposal to set rates differentiated by railroads and by freight groups for initial and final operations at a level which insures the profitability of these operations on each railroad. The question of shipment profitability on all railroads will be solved also.

It should be noted that organization of cost accounting in sectorial line enterprises based on use of the new Decree, taking additional measures for its further improvement on the railroads into consideration, was proven. This is especially true regarding determination of the right to costs, of financial results, of fund-generating indicators oriented towards improving work quality, of the composition of technical resources and use of rolling stock, of avoidance of overspending working capital and a rise in nonproductive costs and losses, as well as of the place and role of profit from subsidiary and ancillary activities.

Here, there is the recurring question of the requirement to stimulate conservation of working capital through fund generation. This is substantiated by the fact that cost accounting provides a means to accomplish a regimen for conserving resources.

At the present time, bonus systems for conservation of fuel and power resources, for conservation in comparison with the right to outlays based upon results in intraproduction management of the estimate, and others are operating successfully. However, further orientation on full use of allocated resources for improvement in the content and state of transportation resources is completely correct, all the more so since there are serious shortcomings in expenditure norm setting. Obsolete norms, an intensity in the expenditure plan, the technical condition of rolling stock, of rail management installations, and of others are unsatisfactory. Requirements for current repair and major overhaul volumes will increase.

There is the opinion that different ways of determining the financial results of railroad, division, and line enterprise activities are one of the deficiencies of the present cost accounting system.* This is not a deficiency, but an account of the special organizational features of the economic activities of the corresponding elements of a single transportation process, an account of their place in creation of the final transportation process via unique generation of their income from shipments within the limits of tariff payments--of the state price for shipment, of operating costs and profit, as well as of the procedure for determination of the right to costs in sectorial line enterprises. Nor can one agree with the proposal concerning the advisability of structuring cost accounting on the basis of one continuous indicator--the production cost of shipments and of operating costs. Excluded here is realization of one vital cost accounting principle--recoupment of expenditures and guarantee of the profitability of economic activities.

Payment for Funds

During the entire time the economic reform was accomplished and developed, the payment for funds (fixed production capital and working capital, was a viable economic lever for improving the use of the railroads' technical resources. However, the previously viable principle of determining differentiated norms of payment for production capital by railroads was not observed in recent years due to a significant drop in railroad overall profitability. Whereas previously differentiated norms of payment for production capital were set at such values that a relatively identical reduction or increase in the operating freight car inventory lead to a relatively even increase or decrease in railroad material incentive funds at the cost of the profit withholding tax, at present these norms are set, practically speaking, stemming from the railroads' actual capabilities to make payments for funds. In 1979, for example, norms of payment ranged from 1 percent of annual norms (Baltic Railroad) to 13 percent (West Siberian Railroad), and for the Moldavian, Transcaucasian, and Far Eastern railroads in the way of experience, payment norms were set at 1 percent of the annual from the cost of freight cars and containers. The Volga Railroad, given a norm of payment at 8 percent of the annual, did not have the estimated profit due to non-fulfullment of the balance-sheet profit plan at 19.5 percent.

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*See ZHELEZNODOROZHNYY TRANSPORT, 1980, No. 2.

Such significant differences in the norms of payment for production capital by railroads, due to unsatisfactory planning task fulfillment based on fund-generated indicators and on use of freight cars, practically speaking do not guarantee the economically substantiated influence of the payment for funds for generation of actual material incentive funds at the cost of profit withholding taxes. Thus, if the amounts of the decrease of the planned magnitudes of material incentive funds are determined using the present procedure, then just a delay in the turnaround time of a freight car causes a significant increase in shipment production costs and great underfulfillment of the estimated profit plan. The aforementioned decrease exceeds the planned magnitudes of the material incentive funds at the cost of profit withholding taxes, for example, on such railroads as the Volga, South Urals, and Far Eastern. Thus, there is no assurance that achievements of the railroads' collectives and of their divisions to accomplish planning tasks and socialist pledges will be objectively evaluated, given present differentiated norms of payment for production capital.

Consequently, at present it is necessary to reexamine the norms and the entire mechanism for payment for production capital. In our opinion, general norms of payment need to be established at a level, which guarantees conditions for accomplishment of complete cost accounting for the network and for each railroad. Relative to the basic operating activities of the rail network, it is advisable to establish the norm of payment for production capital at 3 percent of annual assets. The Ministry of Railways should be granted the right to establish for the railroads, within the limits of the overall amount of the payment for production capital, differentiated norms for rolling stock to raise the railroads' level of interest in improving the use of production capital and intensifying responsibility for mistakes made.

Intensification of the viability of such a payment method requires that, when accomplishing plans for shipment volumes, for a growth in labor productivity and profit (or of planning tasks based on other established fund-generating indicators) at a reduced cost to production capital (rolling stock) in comparison with the value envisaged in the plan, savings in the payment for funds remain at the disposal of the railroads. Their contributions to the Ministry of Railways and the ministry's contributions to the budget as well should be reduced by these amounts. Adoption of these proposals will facilitate improvement in operations of the railroads and fuller satisfaction of the national economy's and the population's requirements for rail shipments.

Incentive Funds

It is known that economic incentive, an important cost accounting principle, is realized via a system of planning, generating, and use of economic incentive funds. Noted in the CPSU Central Committee and USSR Council of Ministers decree on improvement of the economic mechanism is accomplishment of a number of new, important decisions on generation and use of economic incentive funds, both for development of the economic initiative of labor collectives and for expansion of the rights of socialist enterprises. It should be noted that, during the years the economic reform was underway, there were positive aspects and substantial shortcomings, which need properly to be studied as we set about practical implementation of the basic principles of the decree, taking the special features of the activities of the railroads, their divisions, and the sectorial line enterprises into consideration.

Analysis of railroad operations during 4 years of the 10th Five-Year Plan, also including results in generating incentive funds at the cost of profit withholding taxes, allows certain conclusions to be made. One must supplement adjusted data on the basic indicators of rail operations for the same periods of the 9th and 10th five-year plans with railroad operations data for 1979 and compare them with 1974. Thus, in 1979 as compared to 1974 dispatch of freight increased by 5.5%, freight turnover by 8.3, passenger turnover by 9.5, adjusted ton-kilometers by 8.4, shipment income by 7.9, and material incentive funds at the cost of the wage fund by 43.7 percent; the material incentive fund at the cost of profit withholding taxes decreased by almost 26 percent. During 4 years of the 9th Five-Year Plan, material incentive funds from both sources (profit and the wage fund) were approximately identical (1.4 billion rubles each). During the same period of the 10th Five-Year Plan, the material incentive fund at the cost of the wage fund overall determined the material incentive fund at the cost of profit withholding taxes by 31 percent. If in 1974 the material incentive fund at the cost of profit per capita from the overall quota was 155 rubles and was 142 rubles at the cost of the wage fund, then in 1979 they were 110 and 195 rubles, respectively. Computed per ruble of the total wage fund, they were 9.2 and 8.4 kopecks in 1974 and 5.7 and 10.0 kopecks in 1979.

It goes without saying that such results can be nothing but perplexing, all the more so because no fundamental shifts will occur in 1980 since the refined annual plan for 1980, as compared to the five-year plan tasking, envisions an 11 percent decrease in freight turnover, almost a 13 percent growth in the total wage fund, and a 33 percent decrease in the material incentive fund at the cost of profit withholding taxes. Therefore, in our view, a change is required in the present procedure for determining planned sizes of the material incentive fund in refined annual plans and, as before, establishment of absolute amounts of the material incentive fund at the cost of profit withholding taxes is necessary for railroads, divisions, and sectorial line enterprises based on norms differentiated by years in the five-year plan in percentages of planned wage funds. Differentiated norms for determination of planned amounts of material incentive funds at the cost of profit withholding taxes for the next year of the five-year plan should be set based on data from a special table, which considers the actual structure of the wage fund for two groups of workers (workers and others) for the base year of the five-year plan. Creation of reserves for ministery, railroad, and division funds must be considered here.

The table USSR Gosplan developed for determination of the planned amounts of the 1980 material incentive funds can form the basis for this special table. However, it must be refined, having increased from 0.15 to 0.20 or 0.25 the change in the norm for every percent of change in the structure of the wage fund by worker groups. Norms differentiated by the years of the five-year plan should be set equally with the growing norms from its actual value in the base year of the five-year plan to a value computed from the table for the last year of the five-year plan. Introduction of corresponding corrections in the differentiated norms for deductions of the planned amounts of material incentive funds at the cost of profit withholding taxes should be envisioned in the event of significant changes, during the five-year plan in comparison with the base year, in the structure of the quota and the wage fund by worker groups.

This procedure for planning material incentive funds will insure the methodological unity of determination of incentive funds in five-year, annual, and refined annual plans and guaranteed elimination of unjustified differences in the sizes of these funds by sectors of the national economy, their associations, and their enterprises. It should be noted that such differences are stipulated mainly by deviations in refined annual plans in comparison with the five-year plans envisioned for the corresponding year mainly due to reasons which, practically speaking, cannot be considered when drafting the five-year plans.

Therefore, it should be emphasized again that the degree of accomplishment of planning tasks on fund-generating indicators and the norms for these indicators must be taken into account and put to use, not when determining planned amounts of material incentive funds in refined annual plans, but only for an increase or decrease in planned amounts of material incentive funds based on the year's accounting periods, depending upon overfulfillment or underfulfillment of planning tasks for the fund-generated indicators for the stipulated periods. Unfortunately, problems of substantiated planning of material incentive funds were not carefully solved in the new "Basic Decrees on Generation and Expenditure of Incentive Funds in 1981-1985."

Growth in labor productivity, freight turnover, and balance-sheet profit should be established as the fund-generating indicator for the railroad network. As pertains to fund-generating indicators for railroads, divisions, and line enterprises, they must be established by the Ministry of Railways taking the special features of the production and financial activities of the stipulated management elements into consideration. Here, it is advisable to use the growth in labor productivity indicator as a fund-generating indicator for all the subdivisions stipulated. However, the procedure for determination of adjusted ton-kilometers for divisions, as well as the possibility of another solution to the problem of labor productivity indicators for rail distances, signalization and communications, and power supply sectors, should again be examined.

It is advisable to establish as one fund-generating indicator freight dispatch as an indicator for the railroads with the largest volumes of freight dispatch (Kemerovo, Donetsk, Dnepr, Tselina, Sverdlovsk) computed per capita of the overall quota. The adjusted ton-kilometer indicator should be established as a fund-generating indicator for railroads with a relatively high share of passenger transport (Moscow, October, Baltic, Transcaucasian, Southwestern, Southern, Belorussian, North Caucasus, L'vov). Freight turnover should be used in this capacity on the remaining railroads. The indicators freight car turnaround time, operations (number of loaded cars plus loaded cars income), dispatch of vital freight, and others can be established, along with those mentioned above, as fund-generating indicators for the railroad divisions.

The advisability of using estimated profit as a fund-generating indicator for railroads and divisions should be examined additionally and carefully weighed, given positive solution of the problem of establishment of economically substantiated norms of payment for production capital.

As pertains to the overall number of fund-generating indicators, one should start with the fact that there must be a sufficient number of them to allow an objective evaluation of final results of enterprise operations, taking their main tasks and special operating features into account. However, when selecting fund-generating indicators, one must guarantee adherence to the requirement that tasking on all fund-generating indicators is confirmed in the established manner. Therefore, production lapses cannot be fund-generating indicators (for example, absence of or reduction in the number of locomotives distributed, and others.)*

It is advisable to reestablish the procedure existing up to 1972 in the network for determination of incentive funds based on the amount of enterprise funds to guarantee the cost accounting interests of each enterprise as a basic operating activity (of a railroad, division, sectorial line enterprise).

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*See ZHELEZNODOROZHNYY TRANSPORT, 1980, No. 1.

In light of the forthcoming development of draft railroad plans for the 11th Five-Year Plan, special attention should be devoted also to guaranteeing the establishment of substantiated differentiated norms for determination of the planned amounts of material incentive funds, keeping in mind elimination of unjustified variations in their values. This results from the fact that such variations occur in practice, although an account of the structure of the wage fund for the two worker groups stipulates the size of the variations between their maximum and minimum value as being on the order of 15 percent. According to the 1979 plan, such variations were more than 25 percent, but the actual variation in the material incentive funds at the cost of profit withholding taxes per 1 ruble of the general wage fund between the maximum (Transcaucasian Railroad) and the minimum (Western Kazakh Railroad) value was about 80 percent.

At present, the efforts of rail transport workers must be directed towards realization of CPSU Central Committee and USSR Council of Ministers decrees on improvement of the economic mechanism. Special attention must be directed towards improvement in the planning and organization of the movement of national economic freight and passengers and intensification of the influence of the economic mechanism on improving the operational effectiveness of transportation organizations.

Here, the viability of economic levers and incentives needs to be significantly strengthened, the railroad workers' material incentive needs to be directly dependent upon work effectiveness and quality, upon final results, upon accomplishment of planning tasks and socialist pledges. Therefore, work to develop and strengthen cost accounting must be accomplished daily, a strict regime of economy must be followed in resource expenditure, and the economic operations in all elements of railroad management must be improved daily. It now is important that every production decision and violation of technology which effect norms, especially train schedule norms, be examined and evaluated from financial positions. Cases of poor management--a rise in operating costs and an increase in shipment production cost, unproductive expenditures and losses, failure to conserve socialist property--must be considered at all levels of management when summing up socialist competition and determining the amounts of workers' bonuses.

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RAILROADS ESSENTIAL TO SHIPMENT OF FARM PRODUCE

Moldavian Officials Speak Out

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 25 Jun 80 p 2

[Conversation between Dmitriy Ivanovich Ivashchuk, chairman of the "Moldplodoovshchprom" association and Nikolay Semenovich Deynego, chief of the Moldavian Railroad as reported by M. Gorbis and A. Pasechnik: "Zigzags of the 'Green' Light"]

/Text/ More than 450,000 tons of vegetables and fruits were supplied by Moldavia to the country's industrial centers last year. Present plans are to increase this amount by more than one-third. Despite the cold, late spring, the prospects for the crop are good on the whole. The republic's main procurement center for fruits and vegetables--the "Moldplodoovoschprom" Union-republic agro-industrial association--is finishing its preparations for the season. Herein one of the top-priority tasks is to shorten the path from the producers of fruits and vegetables to the consumers. For the time being, unfortunately, there are quite a few obstructions here. And then the cherries and tomatoes, the grapes and peaches, which have been cultivated with such efforts and love, will perish....

How should we stop up the channels of these losses? This was the subject of a conversation which was held today between the chairman of the "Moldplodoovoshchprom" association, Dmitriy Ivanovich Ivashchuk, and the chief of the Moldavian Railroad, Nikolay Semenovich Deynega.

D. IVASHCHUK:--Over many years of work our cooperation has already accumulated a great deal of specific experience. In recent years we have put into practice the working out of joint socialist obligations and joint measures on cutting down the idle times of railroad cars engaged in loading operations. Weekly gating conferences are held regularly with the participation of our workers as well as railroad workers, and mutual check-ups are carried out. Able to serve as a good example of fruitful cooperation is the work done by the groups of our Tiraspol' procurement and marketing association and the railroad workers of Bendery, who have successfully introduced a direct variant of receiving, loading, and shipping out fruits and vegetables, known as "field--truck--railroad car."

N. DEYNEGA:--There are quite a few such examples. And, in my opinion, they all express the main thing in our mutual relationships--a common concern that fruits and vegetables be more rapidly and better delivered to the consumers. Our people put forth a considerable amount of effort and energy so that the tasks of haulage can be coped with and so that every car loaded with fruit and vegetable produce can be given the "green light." But, why should we hide our sins? It sometime happens that, for various reasons, we place obstacles on this path for the procurement people.

D. IVASHCHUK:--You certainly do, and serious ones too. Let's recall last year, Nikolay Semenovich; moreover, let's take the peak of the season--July through October. Of the total number of 34,500 cars which we requested, only slightly more than 20,000 were delivered and loaded. Under such contions how was it possible to cope with the assigned task with regard to shipping out produce? An even greater confusion in our work is caused by the failure to fulfill our requests with regard to the kind of rolling stock required. Let's say, during the above-mentioned period we requested 19,500 boxcars. We received only 11,000.

It seems to me that you and I must admit that in the organization of the transportation conveyor we still have quite a few miscalculations.

N. DEYNEGA:--It would be difficult to take exception to that. An insufficiently high level or organization is our Achilles heel. In my opinion, it all begins with imprecise operational planning.

In general, how is the planning of these hauls carried out? "Moldplodoovoshchprom" informs us what quantity of fruits and vegetables it proposes to ship out during the year. We include this figure in our yearly freight-shipment plan, which is then approved for us by the Ministry of Railways. Planning by quarters and by months is conducted by us in accordance with the association's requests. But the ripening of each sort of fruit and vegetable and their dependence on weather conditions for their delivery to the stations requires a certain flexibility in the planning and carrying out of hauls. It was resolved, therefore, to supply the cars for fruit and vegetables on demand as well, upon the requests of the freight shippers, to be presented five days before the loading is to begin.

And here is where the troubles begin. The "Molplodoovoshchprom" association presents unrealistic, for the most part inflated, requests. It "over-insures" itself. Let's return to the third quarter of last year. You requested slightly more than 29,000 cars. To be sure, we were unable to completely satisfy this request; we allocated 26,500 cars. But of these you loaded only 18,000. Moreover, the turndowns would arrive, as a rule, on the day of the loading, when the rolling stock was already in place.

D. IVASHCHUK:--The shortcomings in operational planning were the subject of a serious discussion in the association on analyzing the results of the last season. Appropriate conclusions were drawn, and a number of measures have been carried out, directed at improving the entire process. These measures deal with the quality of the requests themselves, the responsibilities of the individual services, and the conditions for providing material and moral incentives to people.

But let's clarify the following problem. I have already said that car idle times are frequently linked with the non-fulfillment of requests with regard to the kind of rolling stock required. We need certain kinds of cars, and you provide us with others. A second factor is as follows. If work in the vinyards is curtailed by rain, then how can we gather the grapes together on the loading ramp? And why do you send cars to us at such times? Here is an instance where our right to turn down the receipt of cars comes into force.

But there is still another problem--that of mechanization.

Look at what happens. In the best crop years the association ships out more than 600,000 tons of fruits and vegetables. But the capacities of the loading ramps, the number of sidings, loading equipment, cranes, and scales have for a long time been inadequate for such a volume. Therefore, we often load manually.

N. DEYNEGA:--You ask us to leave in reserve before the beginning of the season not 5,000 cars but 10--12,000. Of course, such a quantity would be of enormous assistance. But we won't speak about the possibility of finding these additional cars, amounting to a number in the thousands. Let's suppose that we do find them. It may be asked: where sould we hold them? There is no place; there are not enough tracks.

Furthermore, you state that the cars which we give you are at times dirty and in need of repair. It sometimes happens. Why? Because our capacities for washing cars are only half of what they need to be. For ten years now a refrigerator depot has been under construction at the Bessarabskaya Station. The Ministry of Transport Construction workers finally promised to turn the project over to us before the end of the first six-month period. But it is obvious that we will not receive it even by the end of the second six-month period.

We must develop in a single rhythm and on a single front, in a comprehensive manner. Here you have reminded us of the "Bendery" variant. It is a good and valuable experience. And, of course, it once more reveals to us the fact that with a well-thought-out organization a great deal can be done even under the present conditions. But we do need to have precise, mutual planning, such as they have, for example, at the Leningradskiy Transport Terminal (of course, taking into account the specifics of our hauls). And then we could, in fact, make the transition from mutual complaints to genuine mutual aid.

D. IVASHCHUK:--A propos of that, you could aid us even now by increasing the speed of produce delivery. If we take into consideration the time limits for hauls consisting of, for example, early tomatoes, then it turns out that to Novosibirsk, Kemerovo, Novokuznetsk, and other industrial centers we can only dispatch shipments on a mainline basis, but not at all trains made up of individual cars whose speeds are set at considerably lower rates. But these time limits for delivering produce were established as long as 20 years ago. During this period the railroad has converted to a new type of traction, has improved its rolling stock, and, in place of the long-vanished "ice-box" cars, a fleet of refrigerator cars has been created. Now you have electronics and automation in your system.... But it has become more complicated to deliver freight.

I understand that such questions should be addressed not to you, the Moldavian Railroad but rather to the Ministry of Railways....

N. DEYNEGA:--I, in turn, would like to ask you the following: haven't you procurement people also had a hand in the matter of the speeds? Instead of making up and sending an entire mainline train to Novosibirsk, we are pulling a "jumble" of individual cars which now and then have to be made up into other trains at various stations.

D. IVASHCHUK:--No, here I am compelled to direct your complaints to the USSR Ministry of Trade. This year they have established 1,350 consignees for us.

On many occasions we have posed to the USSR Ministry of Trade the question of cutting down the number of small-scale consignees of fruit and vegetables and of organization the consignment of our produce to large-scale industrial centers in the form of large batches to wholesale bases. But there are delays in solving this problem.

N. DEYNEGA:--But, meanwhile, the season does not wait. The late spring set up its own schedule for the ripening of the crop; it shifted and compacted the time periods for its harvest and haulage. A different and even more intense rhythm of work is required from us all.

We are now completing our preparations for the season. The cars remaining in the reserve are being checked out and repaired, whereas the refrigerator fleet is being put into operating condition. Particular attention has been paid to the training of personnel.

An Afterword to the Dialog

As we can see, the procurement agents and the railroad workers have many problems.

But what lessons could be drawn from the accumulated experience in both departments? Again, as in years past, we are disturbed by the preparation of cars throughout the "Moldplodoovoshchprom" system for mass hauls of highly perishable produce. The schedule is disrupted by delays of rolling stock for shipping out early vegetables. Out of a thousand cars only half have been equipped with special gratings. The situation became so bad that by personal directive of Deputy Minister of Railways F. I. Shuleshko it was resolved to take 1,500 boxcars on the Odessa Railroad during a three-day period and send them in the form of mainline trains to Moldavia. So what happened? In two days only one-third of this rolling stock was dispatched. Furthermore, every second car required major repairs. Still not carried out to this day is the order of the Ministry of Railways with regard to the preparation of the Moldavian Railroad of 1,200 ARV's (independent refrigerator cars) and 1,000 refrigerator cars in sections.

At present early cherries are being delivered by airplanes to the inhabitants of Moscow, the oil workers of Tyumen', and the builders of the BAM (Baykal'-Amur Railroad).... Further on in the season this unique conveyor will handle later cherries, apricots, peaches, and early apples. Before the end of July "Moldplodoovoshchprom" plans to deliver about 7,000 tons of pitted fruit alone to Moscow, Sverdlovsk, Kemerovo, Chelyabinsk, Tatariya, and other major industrial centers of this country. Within this plan disruptions in the preparation of cars for hauling early fruits and vegetables could bring about major complications.

Serious thoughts are also caused by an analysis of the mutual relations between the two permanent partners here. It is simply amazing how much time and effort they expend on all kinds of disputes and endless complaints. But the essence of the matter lies not even in the disputes themselves but rather in that situation which is seen to be behind them: a bureaucratic approach and a flying off in all directions at once. And this has already inflicted serious damage to the business at hand.

It is not in vain that Moldavia is called the All-Union garden and orchard. A new stage in the development of this important sector was marked by the decree of the CPSU Central Committee and the USSR Council of Ministers, "On Measures to Further Increase Production and Procurement of Fruit in the Moldavian SSR," as adopted last year. By the end of the five-year plan the republic is scheduled to bring its gross production of fruits up to 1.8 million tons, and by 1990--to as much as three million tons. This will be a serious test for the Moldavian procurement agents and railroad workers.

Serious Shortcomings

Kiev PRAVDA UKRAINY in Russian 6 Jul 80 p 2

[Article by B. Vasilevskiy, non-staff inspector fo the Ukrainian SSR People's Control Committee; M. Kotsyuruba, People's inspector, senior acceptance and transfer officer at the Novomoskovsk station; A. Kaganskiy, special correspondent: "Confusion at the Start"]

/Text/ This year has turned out to be quite a difficult one for farmers. We must aid them in all possible ways to preserve the crop they have grown and to rapidly and without losses convey it to the state's granaries. "Here a great deal will depend," Comrade L. I. Brezhnev has pointed out, "on the precise and well-arranged work, in good conscience, of the procurement, trade, and transport organizations, as well as the processing enterprises, all those through whose hands pass products which are valuable and necessary to our people, and which have been acquired by enormous labor."

The railroad workers of the Dnieper Mainline and the procurement agents have actively joined in a competition to greet the 26th CPSU Congress in a worthy manner. They live with a concern for the crop and are striving to be fully prepared for the harvest season; for this purpose they are applying a great deal of effort and creative initiative. Nevertheless, there are still some shortcomings and unsolved problems in transport operations. This is the subject of the report which is published below.

The first deputy chief of the railroad, V. Kirillov, talks in detail about what kind of measures are being adopted to make better utilization of boxcars during the harvesting season. Here it is important to assure the preparation of the entire transportation system. The experience of the workers from Leningrad and Odessa is taken as reinforcement.

As they say, however, it is better to see something once than to hear about it a hundred times. And so we went out to the grain-loading stations. Novomoskovsk. With difficulty we found the repair-and-washing point, where the rolling stock is prepared. Situated on one track, it was crowded with defective cars and cluttered with trash and various wastes. Crowded into a small area was a group of fitter-repair-men and welders. We asked what was causing the idle time. "They have not yet delivered any cars for repair," answered the fitter Nikolay Kuz'menko.

And this kind of thing can be observed here almost every day. With regard to technical process, this point should turn out 80 cars per day (current repairs and washing), but only 40 are planned in the schedule. Unfortunately, the quality of the repairs is also low; the washers complain that the cars are not cleaned from freight remnants, and broken glass remains in many of them. It is especially difficult at night. Moreover, cars are sent to this point in need not of maintenance or current repairs but of planned, depot, and even of plant repairs.

Conversations have been carried on for a long time already about building a new, up-to-date point for preparing rolling stock. But so far these are only words. And so what's causing the delay? After all, the plan for the new point has been worked out, and the funds have been allocated. It turns out that construction has been blocked because of various small-scale lacks of coordination.

The existing repair points are poorly supplied with materials and spare parts. There are not enough centering arms, brake shoes, or automatic coupling parts.

We read on many boxcars the following inscription: "Load without Grain Shields." This means that these are cars with self-sealing doors. And few people pay attention to the fact that in the process of being used the doors have practically lost their hermetic capacity. Through the cracks which have appeared grain leaks out during the hauls. Consequently, shields are in demand. But there are not enough of them; they have already been wasted on any possible manner of economic facilities.

The chief of the railroad's freight service assured the members of our road brigade that there were enough shields. But the facts testified to the contrary. During a five-month period the railroad's workshops produced scarcely more than 7,000 shields instead of the 10,000 which were provided for. There is also a shortage of packing rods.

Convincing evidence of the fact that railroad workers have not closed off all the channels whereby the future crop may be lost is provided by the following instances. The Loshkarevskoye Grain-Receiving Enterprise recently dispatched a loaded car, and a portion of the grain seeped out of it onto the tracks. The same thing happened along the railroad to the Mezhevaya Station, to which a car loaded with grain was traveling from the Dnepropetrovskiy Grain-Product Combine.

Or the following fact. At the Pereshchepinskiy Elevator grain was being loaded into a truck. Grain spilled out onto the ground along the railroad siding tracks. And what was particularly strange was that the elevator director, I. Lichinkin, indifferently looked on while this was happening. Obviously, he had become accustomed to such phenomena. To our way of thinking, in order to speed up grain unloading from grain-carrying cars and, consequently, to prevent losses, the elevators need stationary points.

As far back as the beginning of June it was revealed that many grain-loading stations of the Dnepropetrovsk Division lack seals, packing fiber, nails, and wire. Only after two weeks time did the freight unit get around to sending the appropriate requisition to the supplier. And what then? Even now this document is lying there without moving.

There are also serious omissions in the preparations for the harvest season among the workers in an allied field--those of the grain-procurement enterprises. Numerous documents have been drawn up on this score, and they have been accurately filed away in the proper folders. But what about eliminating the shortcomings? The chief engineer of the Dnepropetrovsk Oblast Administration for Grain Products, Yu. Malakhov, answered as follows without thinking:

"At all elevators and combines the sidings have been fully repaired; people and machinery are fully prepared."

But, in fact, everything is otherwise. The sidings at the Novomoskovskiy Combine were run down. In many places the crossties were covered over with mud, and the spaces in between them were filled in with sand. The condition of the water-drainage facilities was also a cause for concern. Serious imperfections were revealed at the Chaplinskiy and Pis'menskiy Grain-Receiving Enterprises, the Braginovskiy and Samoylovskiy Elevators, and the Pavlodarskiy Grain-Products Combine.

And there is more. Certain grain-receiving points are inadequately equipped with apparatus for loading cars with sealing doors. Far from all drying installations of the oblast grain-products administration had been put into a state of full readiness.

There are also facts such as the following. At the end of last year a state commission headed by the chief of the Dnepropetrovsk Grain-Product Oblast Administration, V. Kupriyanov, signed an agreement concerning the reception of a new mixed-feed plant in Novomoskovsk. But even half a year later installation work was still being conducted on this facility. The laying of the sidings was being drawn out. The Ukrainian SSR Ministry of Procurement knew very well about all this, but they did not trouble themselves with any explanation of the causes as to why this enterprise is not in operation even now.

Grain hauls must not be considered in isolation from the general status of operational work. And, of course, the faster the turnover of cars, the more smoothly will proceed the shipment of grain. Unfortunately, on the Dneper Regional Railroad this is also hindered by serious omissions in planning hauls and by the uneven presentation of freight for transportation during the course of a ten-day period and of a given month. Here is where the railroad workers should exhibit their own principles and stiff requirements towards the slow-moving clients who are supplying them.

Time flies. The harvest has already begun in the southern part of the republic. Here every hour is worth money. Railroad transport workers must do everything possible to deliver rapidly and without losses the crop to the Motherland's granaries.

Azerbaijan's Problems

Moscow GUDOK in Russian 8 Jun 80 p 1

[Article by V. Dimitrov: "The Gifts of Azerbaijan's Land-'Green']

/Text/ The generous land of Azerbaijan has rewarded the labor of its vegetable growers with an abundant crop. Now trucks and trailer-tractors, loaded to the top with boxes of cabages are hurrying along to the railroad stations of the Lenkoranskiy, Astarinskiy, and Masallinskiy Rayons. From here they will be shipped to many of the country's industrial centers.

...Loadingcabbages begins early in the morning at the Port Il'ich Station. Right here by a refrigerator car a truck is being turned around. Its driver has delivered a load from the Nizami Sovkhoz. This was the fourth trip today for A. Mamedov from the field to the receiving point. Z. Salayev's brigade of loaders worked rapidly. Within a short time all the boxes of cabbages were accurately arranged in the car.

The Nizami Sovkhoz is one of the Lenkoranskiy Rayon's major farms. It ships out vegetables. They know the value of time here, and they have curtailed car idle times in loading by 20--30 minutes, as compared to the norm. The manager of the receiving point, M. Khankishiyev, has skilfully organized the work. The shippers and the railroad workers have ensured an average increase of the static load by 1.7 tons per car, by means of which they have freed up 90 cars for additional hauls since the beginning of the season.

"Here," states the station chief, R. Gambarov, "we have formed good business relations with the freight shippers. During a period of mass shipment this helps us to achieve a high degree of efficiency in utilizing the rolling stock."

That same day the deputy chief of freight service of the Azerbaijan Railroad and I also visited the stations of Lenkoran', Girdani, Kamyshkova, and Astara. And everywhere we heard the same thing: the railroad workers are satisfied with the work of the freight shippers, the cars are not being delayed, and the static load is being over-fulfilled.

But, unfortunately, breakdowns have begun to appear in the operation of the vegetable conveyor. What has caused them? There are various answers to this question.

The first secretary of the Lenkoran' Party Gorkom states as follows:

"The loaded cars are pulled out of the station in an inefficient way. There are interruptions in guaranteeing a supply of empty cars."

The chief of the agro-industrial association of the Lenkoan' Rayon, K. Kyazimov:

"Many defective cars arrive at the station."

The trainmaster of the Sabir Station, G. Zeynalov, who has been sent on assignment to the Girdani Station:

"This station has lost its maneuverability because of the loaded cars which have accumulated here. This creates difficulties in supplying empty cars to the loading platforms."

The chief of Section 5-2685 of the Sverdlovsk Depot, V. Stolyarov:

"It's been almost 24 hours since we finished loading our section, and we're still standing in the station."

The Astara station chief, Sh. Nasirov:

"No less than 50 trucks have piled up at the receiving point, all loaded with cabbages. They've been standing here since morning, but we don't have a single car to be supplied to them for loading."

Commentaries, as they say, are superfluous. Let's just cite certain facts. At 1800 hours on 29 May at the stations of this zone there were still 650 cars, loaded with cabbages and waiting to be pulled out. Many of them had been standing there for two or three days. By 0600 hours of the following day the remnant had been decreased only to 530 cars. During this period 180 empty cars had been supplied--more than 400 less than had been requested.

During the first few days of June the shipping out of loaded cars improved. But this occurred by virtue of a curtailment in loading because of a shortage of empty cars.

The situation which was created on the railroad with the shipping out of vegetables has been explained by a shortage of locomotives. Let's say straight out: this explanation is extremely unconvincing. The fact of the matter is that the locomotives which we do have are being utilized unsatisfactorily. Thus, on the Nakhichevan Division, from which the greatest amount of vegetables is shipped, seven or eight more diesel locomotives than assumed are maintained every day in the operating pool. And on the Baku Division, to which the vegetable trains from Nakhichevan are transferred, there are even more--over 20 electric locomotives. What kind of shortage is this?

The unscheduled departure of loaded cars has limited the maneuverability of the stations and created serious difficulties in forming trains along the designated roads. Sections head out in many directions. From the loading platforms they are assembled in vacant places on the station tracks. Under such conditions it is very hard to form direct through mainline trains.

And it is utterly impossible to understand why an empty car filters through into the loading zone without being prepared to receive vegetables. On 29 May, for example, Section 5-2928 was delivered, needing diesel fuel, oil, and Freon. But, of course, it had been standing in reserve at Imishlya, and it was high time to be concerned about fitting it out.

Since the beginning of the present season more than 7,000 cars of cabbage have been shipped to the country's industrial centers. During this same time period by virtue of increasing the static load (by an average of almost 0.9 tons in comparison with last year) more than 330 cars have been freed up for additional loading. In other words, by means of a lesser amount of cars an attempt is made here to ship out more freight, but then the empties return too slowly to the railroad. From 20 through 31 May only 420 cars arrived. And this was with a daily request for 500 cars. Now more empties are arriving on the railroad than in May. During a five-day period 950 of them arrived. But, as before, the daily requests are not being satisfied.

There is no doubt that the Azerbaijan Railroad has difficulties which are complicating its train operations. But this does not remove responsibility from the traffic managers for breakdowns in the vegetable conveyor.

In our opinion, it is necessary likewise to set up very strict controls at the stations over the designation of vegetable mainline routes during the process of unloading refrigerator cars. Their fastest possible freeing up and return is in the interests of the railroad workers, shippers, and those on the receiving end of highly perishable freight.

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DEVELOPMENT OF REFRIGERATED ROLLING STOCK VIEWED

Moscow ZHELEZNODOROZHNYY TRANSPORT in Russian No 6, Jun 80 pp 68-69.

[Unattributed: "Development of Domestic Refrigerated Rolling Stock"]

[Text] The Bryansk Machine Building Plant Production Association (PO BMZ) built and sent the 3,000th five-car refrigerated section to the country's railroads. This event is a great milestone in the development of USSR refrigerated rolling stock (RPS), whose history dates back a bit more than a quarter of a century. We recall that, prior to the early 1950's, perishable cargo was transported in the Soviet Union exclusively in refrigerator cars. These cars have been greatly improved and modernized; however, they could not meet the ever-increasing requirements for transportation of perishable cargo. In this connection, the course adopted was introduction of standard isothermic cars with mechanical cooling and electric heat (refrigerated cars). Initially, the railcar manufacturing plant in the city of Dessau (GDR) was the chief supplier of refrigerated cars for USSR railroads. In the early 1960's, refrigerated cars also began to be built in the USSR at the BMZ, after an extended cycle of scientific research and experimental design work done by the plant, in close creative coordination with the All-Union Scientific Research Institute of Rail Car Building and the All-Union Scientific Research Institute of Railway Transportation [VNIIZhT], MPS [Ministry of Railways] main administrations, as well as with the plants and institutes in related sectors of industry, which manufacture component equipment and spare parts.

The USSR refrigerated transport inventory already had GDR-produced five-car sections when production of the first Soviet five-car refrigerated sections, later designated the RS-1, began. Analysis of the design and know-how in operating these sections made it possible to select the following principle trends in creation of the domestic design: an increase in the length of the freight cars from 17 to 21 meters, creations of cargo compartments of increased volume and cargo capacity, and arrangement of the section into four identical freight and one service cars containing the diesel generator section and living accommodations. The cars in the BMZ-type RS-1 refrigerated section are arranged, as follows: a diesel car in the center of the section, with two freight cars on each side. In recent years, the cars can be arranged in any sequence due to improvements in the section electrical circuitry. As opposed to analogous GDR-produced cars, Soviet refrigerated cars have one power section rather than two. These design differences, as well as wide use of alloy steels, aluminum alloys, and shaped elements made it possible to create an RPS type with high technical and economic indicators, in particular, with a large cargo capacity and a low tare mass.

The section design was continually improved as it was series produced and operated. Purposeful work in this direction, creative use of domestic know-how, careful study, and proficient elimination of deficiencies based on results in operating RPS made it possible to improve the technical level and operating reliability of domestic refrigerated sections.

Based on certification results, since 1973 RS-1 five-car refrigerated sections have been manufactured with the state Seal of Quality. In 1979, the association converted to series production of a new model, the RS-4 section.

Along with current development of a PO BMZ refrigerated section design, integrated research into improvement of their basic systems was conducted during these years. In particular, consistent improvement in car design occurred (the basic trend is an increase in the cargo capacity and a reduction in tare mass), and optimal planning solutions for cargo compartments were found to increase their useful cargo volume and tonnage on pallets. A complex of operations was accomplished to use progressive materials in car designs (corrosion-resistant steels, new insulation materials, paints and varnishes, and others), which insured an improvement in the durability of the designs, an increase in time between repairs, and a reduction in the number and volumes of planned repairs.

Improved car undercarriages, automatic couplers, shock absorbers, and vibro-acoustic materials have been developed, which facilitates improvement in the dynamic qualities, has increased rolling stock reliability, and has made their operation more comfortable. Progressive systems for regulating and controlling power cooling and ventilation equipment based on highly-accurate electronic instruments have been introduced. They made it possible to improve the quality of the temperature modes supported, to increase the level of process automation, and to reduce the expenditure of the section's power resources.

Work has been done to increase the effectiveness of the power cooling equipment to expand the operating capability's temperature range, to reduce the time for cooling the cargo, and to remove all restrictions on the range of section operations. Technical and economic research into the effectiveness of section use in the national economy has been accomplished and their quality and technical level are continually monitored. All this was accompanied by broad experimental research into proposed improvements, by development of recommendations on the manner of and periods for introduction, and made it possible continually to maintain the RS-1 section at a high technical level.

During the 1970-1979 time frame all basic parameters and indicators of domestic five-car refrigerated sections were improved: the nominal carrying capacity rose to 24 tons, tare mass dropped to 6 tons, cargo volume increased to 15.2 cubic meters, and capacity of the cargo compartment on pallets increased to 48. The nubmer of planned plant repairs per period of service was reduced from three to two, and depot repairs dropped from 23 to 15; the guarantee period increased from 1 to 2.5 years.

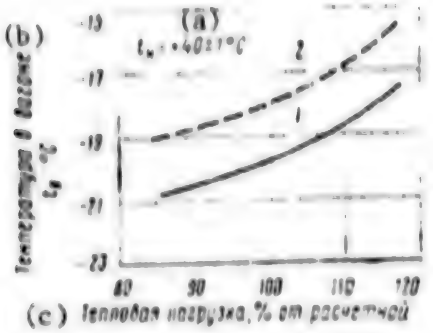
Section certification, connected with introduction of various progressive measures, made it possible in 1972 to realize an economic effect in the amount of 51,200 rubles (per section), about 63,800 rubles in 1975, and more than 60,100 rubles in 1979.

The heat engineering and power cooling parameters of the section had been increased substantially, the quality of the temperature modes maintained has been increased, sanitary and hygienic conditions for operators are being improved, and elements of technical aesthetics are being introduced.

The work done resulted in a sharp reduction in periods for the beginning of series production of the new RS-4 section. An interdepartmental commission assigned this section (as a new product) to quality group A and recommended that it be certified for a higher category of quality, with award of the Seal of Quality in 1980.

Conversion to production of the new RS-4 refrigerated section was linked with a material improvement in all basic section parameters. Primarily, this relates to carrying capacity and volume, as well as to power cooling parameters.

The increase in section carrying capacity was achieved by using modernized KVZ-42 trucks (the rigidity of the axle box and central suspension has been increased and the spring bar, the subcradle beam, and the subcradle beam trunnion have been strengthened), which made it possible to increase the load per axle by 1 ton-force. Use of a widened door aperture and a 3-layer pallet arrangement made it possible to increase the pallet volume to 42 units. Polystyrene foam with joints filled with a special compound and use of a waterproofing tape recommended by the Urals Branch of the VNIIZhT formed the body's insulation, including that of the car roofs. These measures along with a reduction in heat flowing into the car from operating circulating fans, insured that operating temperatures of -20 to +14° C were maintained in the cars, given a wide range of ambient air temperatures (from +30 to -50° C). The figure shows the relationship of the minimum temperature maintained in the cars in an RS-4 section to the value of the heat load per unit. The relationship was obtained in tests in a heat chamber with an ambient air temperature of +40±1°C, simulating the estimated load using an electric stove with an output of from 2.5 up to 6 kilowatts installed in the cargo compartment (simulating solar radiation, insulation deterioration, and so on) and oak beams with a volume of about 60 cubic meters and a mass of approximately 35 tons (simulating the load in the car and the heat capacity of the cargo).



Minimal temperature in the car, depending on the heat load:
1--with one circulating fan; 2--with two circulating fans.
(a) temperature load; (b) temperature in the car, (c) heat load, % of estimated.

The cooling time for previously uncooled cargo also was significantly reduced: it did not exceed 36 hours under the extreme conditions simulated during the tests. These indicators make it possible to guarantee the reliable transporation of perishable cargo practically speaking in all climatic zones.

Major changes were made in the design of the regulatory, control, and monitoring systems. The RS-4 section uses centrally regulated and controlled electronic systems. They provide for two-position multipoint regulation of the modes and envision operation of the heating and cooling units in the "Cold" "Hot" "Ventilation," and "Defrost" modes. Any temperature from -20 to +20°C can be established in the cars. The systems are distinguished for the reduced number of time units and control circuits, very important for grouped rolling stick containing many centrally controlled refrigerated cars.

Introduction in the section of the device to control the equipment when the temperature drops in separate parts of the cargo compartment made it possible to significantly improve the temperature mode in the cars. The variations in the temperature fields in the cars is close to the regulated value of three degrees centigrade. Here, the cargo is protected against over cooling or heating up by heat-treated air.

Three independent temperature monitoring systems are used in a section: two centralized with displays and recorders and one for local monitoring using a portable instrument. Characteristic of these systems are the highly accurate measurements, supplied by potentiometric circuits using a compensating method of measurement.

Appliances include a refrigerator, a stove for preparing food, water heater, TV, radio, intercom, and others, which furnish the requisite working and leisure conditions for the operators. Special measures were taken in designing the diesel car to cut down noise and vibrations and to improve its technical-aesthetic indicators and sanitary-hygienic conditions.

All the RS-4 section's basic systems meet world standards. Widespread introduction of the new refrigerated rolling stock will permit a significant improvement in transportation of all perishable cargo on all the network's railroads.

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STATION PLAN FULFILLMENT PROBLEMS

Moscow ZHELEZNODOROZHNYY TRANSPORT in Russian No 6, Jun 80 pp 58-59

[Article by B. I. Gurskiy, chief of Nizhneudinsk Station, and V. K. Babak, chief bookkeeper: "Improve Plan Substantiveness"]

[Text] The problem of planning, assessment of enterprise work on labor productivity and production cost of transportation, the question of the static load, and others raised in Ye. A. Sofinskiy's article are especially pressing, given contemporary station operating conditions.* It properly notes that the plan is law and must be fulfilled. In practice, several plans exist for the identical type of operation. Thus, planning for cargo dispatch, as a rule, is done every month for the basic cargo department operational plan and for the supplemental plan. But, the calculations upon which these plans are issued are unknown.

For example, Nizhneudinsk Station, East Siberian Railroad, in January and February did not accomplish the basic cargo dispatch plan, from the calculation of which the station receives the right to operating costs and determination of production cost. Nonfulfillment of the cargo dispatch plan occurred, not due to the station collective's fault, but because of the prohibition against loading lumber for consignees that do not belong to Glavles [Main Administration of Timber Procurement and Wood Processing], for which the station accomplishes 50 percent of loading operations.

As is known, each type of cargo has a different static load for rolling stock. Fulfilling the railcar loading plan, the station does not fulfill the load in tons and the static load assignment. But, this is one of the established indicators by which a station receives financing and makes deductions for the material incentive funds. During the first quarter, the lack of coordination in plans reached 15 percent. The assigned planned static load for the first quarter was 39 tons, with a miscalculation of the type loading plan, it should be 33.4 tons.

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*See ZHELEZNODOROZHNYY TRANSPORT, 1980, No. 2.

Along with the questions raised, it is proper to dwell also on the planning of labor and the wage fund. As rule, these plans are established at the previous year's level of actual planning, with a reduction for the growth in labor productivity.

It is noted correctly in Ye. A. Sofinskiy's article that labor and wage fund plans are not established according to norms. For a station, they must be compiled strictly according to the norms for system services, which support the movement of trains and traffic safety, rather than according to the work volume, just as the contingent of workers occupied with basic activities does not influence the amount of traffic. For example, 700-800 passengers depart Tulun Station daily, yet the station is not authorized a station chief and an announcer; there are just the two station attendants. On the East Siberian Railroad, there are dozens of such stations, where cashiers sell tickets, handle arriving and departing trains, and provide information to passengers. This all impacts negatively on the quality of passenger service.

It is known that one cannot get along without a station and fleet attendant, a signalman, dispatcher, and others involved with train traffic, regardless of the number of trains handled. Unfortunately, in labor plans, this contingent is planned based on the amount of traffic, meaning that the number of personnel varies quarterly. The lack of realism in planning impedes improvement in labor productivity, as well as personnel selection and assignment.

The opinion exists that labor productivity and output production costs should be determined based on methodology used in industry. In our view, this is unacceptable for railroad transportation, since the transportation process is continuous for line enterprises and the railroads and it is impossible to determine the beginning and end for any specific accounting period.

The way line enterprises directly involved in the transportation process presently are financed also requires improvement. An enterprise receives financing for actual work done in the first two months of the quarter, but, for the third month of the quarter, it is the difference of the work done for the quarter minus the financing received in the two preceding months. That is fine, if the work is overfulfilled in the first two months. Then, underfulfillment of the plan in the third month is covered by the previous overfulfillments and financing obtained will be the arithmetic mean for the quarter. Thus, for the third month, the enterprise receives the right to financing, which does not correspond to reality.

If, for two months, an enterprise does not fulfill the assigned indicators and correspondingly does not receive the right to cover expenses, then, with plan overfulfillment in the third month, it does not receive the right to the work actually done in a given month. Not having received financing in the first two months of the quarter, an enterprise also does not receive it for actual work in the third month. Consequently, production costs will not reflect the actual situation in either case.

This financing procedure is unacceptable when the results of socialist competition are summed up monthly, since it does not reflect the collective's actual work.

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OCEAN AND RIVER

MODEL OF THE LIGHTER CARRIER 'JULIUS FUCHIK'

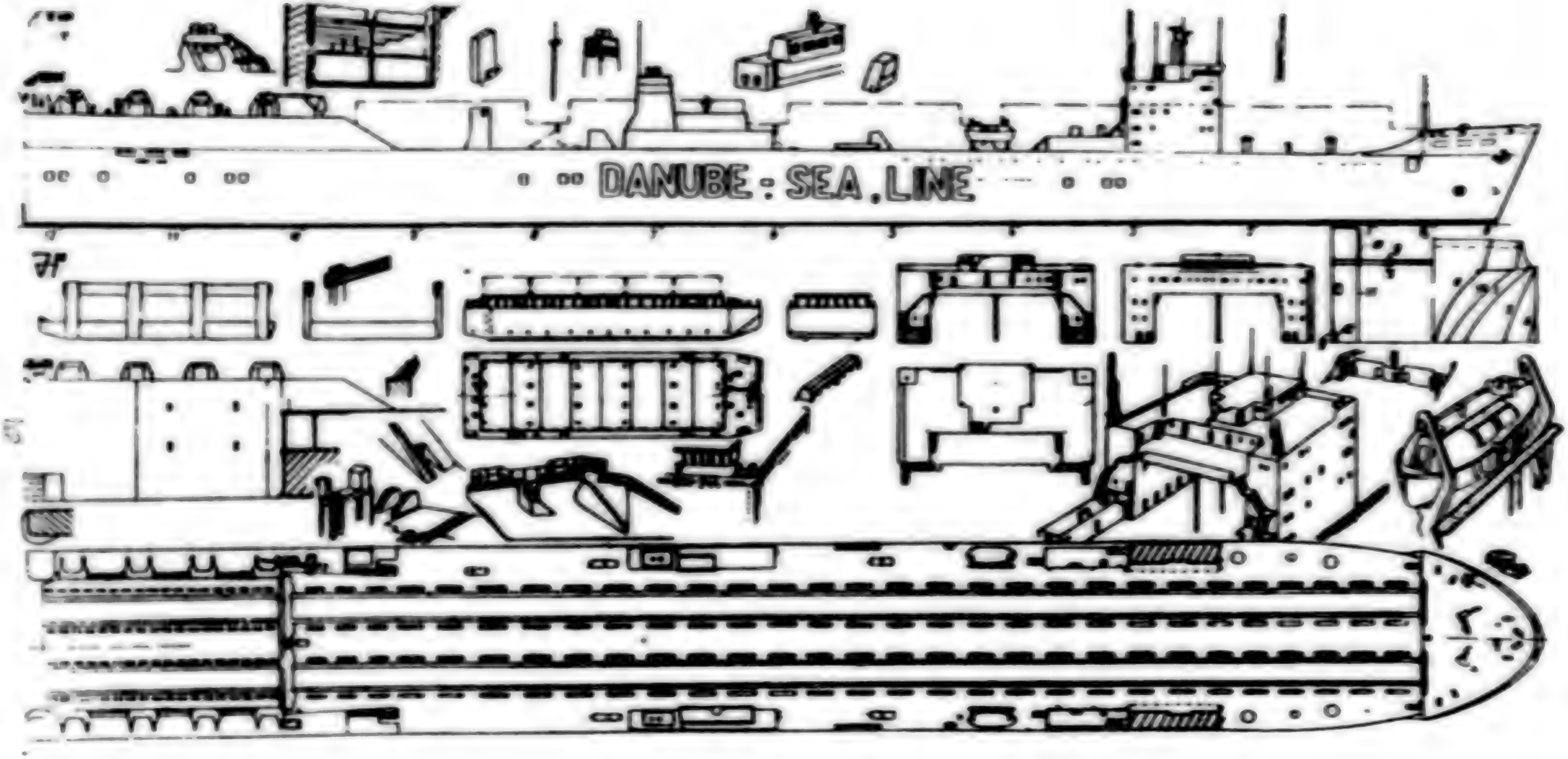
Moscow MORSKOY FLOT in Russian No 8, 1980 pp 74-75

[Article by I. Perestyuk in the magazine's "Modelmaker's Corner"]

[Text] The lighter carrier "Julius Fuchik", like its sister ship "Tibor Samueli", is the largest dry cargo ship in the Soviet maritime fleet. They serve in the river and sea transportation of the international shipping enterprise "Interlikter". The overall length of the ship is 266.5 meters, the beam - 35 meters, height of side - 23 meters, and the draft - 11 meters. The deadweight of the lighter carrier amounts to 37,850 tons and its speed is 19 knots. On a scale of 1/500, a model of it will have a length of 533 millimeters and a width of 70 millimeters.

The lighter carrier is loaded in the following way. A tug brings a lighter up to the stern,pushing it into the well formed by two stern projections, to a place above a submerged lifting platform. While the first lighter is drawn through the rubber-faced guiding strips and secured, the second lighter approaches. Through a very complex system of pulleys, winches lift loads of 2700 tons (not including the 550-ton weight of the platform). The lighters are accommodated on three decks and, on the approach to each of them, the platform is accurately stopped and connected by railways laid along each deck. The lowest deck is closed when the ship is underway by a special gate of the dropping type. On the second, usually open deck, the transoms of two lighters and some of the framing and pillars can be seen (see illustration). Ten lighters are accomodated on the upper deck. On the hatches of each of them 15 containers, 6.1 meters long, can be placed. The containers can be of different types having different coloring and in this way they embellish the model.

Each lighter has a length of 38.2 meters, a width of 11.0 meters, a height of side of 3.9 meters with a 3.3 meter draft and can be loaded with 1100 tons of cargo. To scale, these dimensions are: 76 millimeter length, 22.0 millimeter width, and a 7.8 millimeter height of side. The hull shape is clear from the illustration. One should merely seek to make the biges, the sheer, and the anchor recess accurately. With sufficient effort, the lighter can be made with all the details, making the hull of solid wood or



The Lighter Carrier
"Julius Fuchik"

plexiglass, and the hatch covers, coamings, and braces from plexiglass or celluloid. The bitts, cable reels, capstan, etc. can be somewhat simplified. Special clamps are located on the lighter slightly above the bilge for securing it to the deck. Also, there is an unusual ladder made by foot steps tunneled into the side. With dark paint on the hull, they are almost invisible, and can be marked on with a needle or ruling pen.

A transporter is moved along the rails. On the bottom of each lighter there are two longitudinal, equal-sided anglebars, installed with the apex downwards. When a lighter is brought to its regular place, the transporter lowers it onto so-called stools which are strong supports. The stools are made with different lengths, but when lighters fill up the deck,they are practically invisible. They can be cut directly into the deck, as the height of a stool to scale will be only about 1 millimeter. The rails can be simulated by gluing on wires, or simply drawn on with a ruling pen. There is no lighter on the platform when the ship is underway, and the platform is secured at the level of the upper deck. The stools on it are significantly shorter in length than those on the upper deck.

On the after part of the upper deck, on an elevated platform, is a control post for the moveable bridges that connect the upper deck with the platform during loading operations. The main loading and unloading control post is in a special deck house on the port stern projection. On the port and starboard stern projections, in four massive frameworks,is the lifting gear with the sheaves which are parts of the huge pulley system. There is no sense in modelling the devices of the whole system in detail. It is sufficient to make the frameworks from celluloid or plexiglass.

In the bow, in the region of the short forecastle, there is a break in the side to prevent too large a flare in the bow frames. In the illustration, two corridors are seen stretching into the interior of the forecastle. Above them, wave breakers are installed. Also on the forecastle are two winches, bitts, a spare anchor, and a foremast. Farther toward the stern, the hull is somewhat raised in order to terminate in the two massive projections that form the well for the lifting platform. Ladders are installed in the inclined parts of the deck, and inside the short recesses leading into the winch compartments, doors are installed. In the inner sides of each of the stern projections, there are openings through which the mooring of barges on the platform is monitored. Guides for the barges also are installed here. In the region of the waterline, the interior and after parts of the stern projections are faced with rubber strips protruding somewhat into the well.

Along the outside of the hull in groups of three there are 12 apertures, and more,singly, in the transom leading into compartments containing mooring equipment: winches, bitts, and cable reels. The apertures can be simulated with recesses of 1.5-2 millimeters depth cut into the hull. In the middle part of the hull and in the area of the after bulkhead of the forecastle, side ports are shown (three on each side) which are simulated by drawing with a pen or by scratching with the point of dividers. The circular port holes are marked on with dividers.

The pilot house and part of the living quarters are disposed in the side walls and in the bridge of the bow superstructure. Its shape is sufficiently apparent. It should only be noted that along the inner sides of the first tier of the side wall are apertures through which, in this area, the lighters are secured to the deck. The apertures are simulated by black paper glue-ons or by drawing pen before installation of the pilot house on the deck (this is convenient also for painting). The bridge of the deck house is supported by four pillars (made of wire) for which holes are first marked and pricked into the deck. For greater strength, the bridge is connected to the side walls with many brackets made from paper or celluloid. On the port side, beginning on the forward face of the side wall and then running along the top of the deck house, is a ventilation duct ending with an outlet under the port mast. The mast itself is made like a tripod - a foundation trunk with diagonal braces.

Aft of the deck house are the lifeboat installation, pneumatic life rafts, companionways, and accomodation ladders. The lifeboat installation is sufficiently clear and does not require commentary. On the second level of the auxiliary deck houses, the sides viewed from the centerline of the ship have ventilation gratings (simulated with a drawing pen or by paper glue-ons). On the after side of each exhaust stack casing there are two ventilation gratings. Between the two exhaust stack casings and on the centerline there is an illuminating mast with rectangular flood lights. Such lights also are installed on the forward bulwark of the navigating bridge.

The variable waterline zone of the hull is painted a brownish red. The hull on the outside with the transom up to the level of the upper deck, is black. The inside of the well above the upper deck, the side walls of the apertures, the name of the shipping line, the name of the ship and the port of registry, the marks of the bulb[?], the thrusting gear, the lifeboats below the sheer and the davits, the forecastle bulwark outside and inside, the wave breaker on the forecastle, the masts, the liferaft containers, the deck house, companionways, and auxiliary deck houses, the raised platform of the post for controlling the folding platforms, the loading and unloading control post, the ventilation heads, the recesses in the stern projections, the crane on the port projection, and the after bulkhead of the forecastle all are painted white. The decks are painted a greyish-green, the framework of the lifting gear a dark grey, the lifting platform and the rubber facing of it - black; the anchor, mooring, and lifeboat winches - grey, the anchors and stoppers, bitts and hawse holes - black. The lifeboats above the sheer and the pontoon under the crane (its housing is white) and the life rings are painted orange. The band on the stack is red, with another white band above it and only the rim is black. The hammer and sickle on the stack and the recesses in the upper deck distributed along the length of the sides corresponding to the positions of the clamps on the sides of the lighters are painted white.

The coloring of the lighters is unusual. Their hulls and coamings are brownish black. The draft marks, letters and numbers are white, and the stripe is brilliant white. The deck equipment including the bitts and hatch covers are light grey, and the anchor is black. The life rings on the forward and aft sides of the coamings are painted orange.

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OCEAN AND RIVER

USE OF MODELS IN DESIGNING LIGHTER CARRIERS DISCUSSED

Moscow MORSKOY FLOT in Russian No 8, 1980 pp 30-31

[Article by I. Tishkin, cand. of tech. sci.; A. Shevchenko, captain for long range navigation; and I. Podmogil'nyy, engineer of Chernomorniiproekt [The Black Sea Scientific Research Institute of Design]. Article is entitled: "From Super Model to Super Ship"]

[Text] One of the reasons for accidents is the inadequate amount of previous study of the peculiarities of navigating ships in approach waterways, canals, and the landing areas of roadsteads and ports under the complicating conditions of the actions of wind, waves, and currents.

It is regrettable that at present the basic method of analyzing the navigation of ships in restricted waters is the study of experience in operating them. In the solution of engineering problems affecting the design, modernization, or construction of approach waterways, canals, ports, and isolated hydrotechnical structures, the so-called "graphic method" prevails. It consists of a plan showing the proposed scheme of maneuvering the ship, and a graphic analysis of the ensuing situation taking into account the influence of currents, waves, and wind. This method is convenient and cheap; however, it is subjective, guided only by experience and intuition, and therefore gives extremely unreliable results, especially when applied to new types of ships and little studied landing areas.

It should be noted that in this field, the methods of physical and mathematical modelling are being used altogether inadequately although in related fields they have been vigorously developed over the past 50 years and are highly perfected. Such methods have been used principally for the needs of shipbuilding and hydrotechnical construction. In the field of the study of the behavior of the systems "ship and waterway" or "ship and hydrotechnical structure," only the first steps are being made.

The data from international symposiums on the problems of maneuvering in ports, on the safety of navigation in restricted waters, and others serve as examples of this dearth of information. The experience of the French sientific research center at Grenoble, repeatedly brought to light on the pages of Morskoy Flot, is well known. Here, in addition to investigations of the problems of navigators, the peculiarities of the maneuvering of very large ships is being studied with controllable [ie; free, self-propelled, and steerable] models.

In the marine hydromechanics laboratory of Chernomorniiproyekt, for several years a series of specific problems of the interaction of ships and hydrotechnical structures have been solved with the use of 1/50th scale, uncontrollable [ie; towed or "captured"] models. As examples: the matter of the interaction of a ship with a pointed pier was investigated; an investigation was made of the process navalov [?][possibly the scouring out and heaping up of the bottom] by ferries in mooring,and the erosion of the bottom at piers by the propellers of ships on the ferry passage from Il'ichevsk to Varna; the process navalov [?]by supertankers during mooring was investigated, and also navaly [?] during rolling of moored ships.

Even such a relatively small set of investigations together with full-scale observations has led to several solutions at the level of standards.

In 1979 at this same laboratory, to study problems of the reliability of operation of lighter carrier systems in complex weather conditions, a self-propelled 1/50th scale model of the "Sibi" type lighter carrier was built. It has a length of 5.34 meters. a beam of 0.7 meter, a height of side of 0.45 meter, and a draft of 0.22 meter.

Similarity of the static and dynamic characteristics [of the model to those of the ship] was provided by appropriate dispositions of special loads in the hull of the model. To reliably simulate the windage of the ship, the principal superstructures and models of the lighters were mounted on the deck of the model.

Two electric motors operating off batteries and driving fixed-pitch propellers were used. The required speed was established by adjusting the voltage of the power supply to the motors and by calibration of the model of the ship over a measured distance.

Under the removable forward superstructure of the model is a cockpit with a seat for an operator arranged so that the latter's eye is at the level of the navigating bridge. The control panel has a handwheel with a mechanical connection to a steering motor and a rudder angle indicator. To the right and left of the wheel are tumbler switches for ahead and astern operation or stopping each propulsion motor and also ammeters for monitoring their operation. There is a push button for a sound signal to deliver agreed upon instructions to the shore during experiments, and an inclinometer.

The model has fixtures for securing sensors of the forces in the anchor chains, and gyroscopic inclinometers andsensors of angular velocity. In the absence of the operator, the cockpit is covered over by the superstructure and part of the deck. The model may then be used as nonself-propelled for the usual measurements in a model basin or on a test range (for investigations of rolling, loadings, and movements while at anchor, the interaction of the ship with the lighters and so on).

In the manned , controllable variant, with the aid of appropriate on-board and on-shore apparatus, the model permits carrying out trajectory measurements and investigations of controllability and of inertial and braking characteristics in order to work out problems of control in restricted waters.

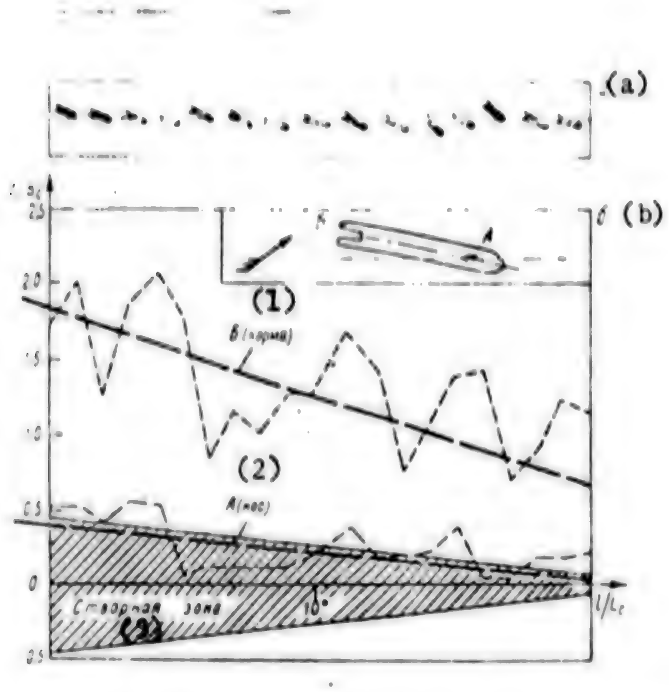
The first experience in the use of the model on a specially equipped test range in the Grigorevskiy estuary demonstrated the great promise of these investigations. With such a complex, repeated repetition of a maneuver is possible on waterways with varying degrees of restriction and with the action of winds, waves, and currents.

The multiple repetitions of a maneuver by different operators in identical conditions makes it possible to evaluate the reliability of the operation of the comprehensive system "navigator - ship - waterway".

The results obtained already permit approximate evaluation of the path of the movement of the lighter carrier with winds from various directions and at various strengths.

Illustration (a) is a diagram of the movement of the lighter carrier,in the presence of a strong side wind and waves, along a five kilometer waterway equipped with a system of guiding ranges. On the graph (b), for these same conditions are shown the characteristics of the trajectories of points on the bow and stern of the model obtained by use of simultaneous theodolite bearings, the accuracy of which is not worse than 1/50th of the width of the model. The horizontal axis of the graph coincides with the direction of the range and the distance along it is expressed in ship-lengths,$1/L_C$. The transverse deviations plotted along the vertical axis are expressed in ship-widths, delta/B_C. The shaded zone characterizes the sensitivity of the guiding range, and the dashed lines mark the mean trajectories (from 8 passes carried out under the same conditions) of the points on the bow and stern. The deviations of the actual trajectory from the mean did not exceed the width of the model with a probability of 67%. The angles of inclination of mean trajectory lines correspond with the angle of drift of the model during the unsymmetrical yawing which is characteristic for ships with excessive freeboard offset toward the bow by the superstructure and the high deck load.

For the comprehensive study of the questions of the safety of navigation in restricted waters and for the rational layout of port approaches, canals, and hydrotechnical structures, it appears necessary to conduct experimental investigations of the movements of ships in various types of restricted waters and of their interactions with waterways and structures by the u- of controllable and captured models of ships. Also necessary is subsequent verification by full-scale observations, by improvement of the analysis of the safety of navigation in restricted waters and so on.



Diagrams of the Movements of the Lighter Carrier

(a) Diagram of the successive positions of the lighter carrier during passage along the waterway.
(b) Diagram of the trajectories of bow and stern points on the lighter carrier during passage along the waterway.
(1) Point on stern; (2) Point on bow; (3) Range zone

It seems to us that the development of such research should be accelerated in due measure in the subject matter of the research institutes of the Ministry of the Maritime Fleet.

Such a proposal already has been stated on the pages of MORSKOY FLOT for instance, in the report of F. Podanev and V. Shuvalov (MORSKOY FLOT No.5 1979). The authors are right in considering that a domestic center for such i[illegible]ations would be able to solve broader problems than the trainer in t[illegible]f Revel. In fact it would permit carrying out deeper scientific and methodological studies on the safety of navigation, including the solution of problems about the navigation and hydrographic provisions for restricted waters, the layout of hydrotechnical structures, and increasing the through-put capacities of ports.

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MISCELLANEOUS

TRANSPORT PROBLEMS HINDER SHIPMENT OF WOOD, WOOD PRODUCTS

Problem Defined

Moscow GUDOK in Russian 17 Apr 80 p 2

[Article by A. Kabakov: "Wood and Transport"]

> [Text] Two points of view--of those who haul and of those for whom hauling is done: the transport workers and clientele, are usually found when discussing any transport problem. A round-table meeting devoted to problems of improving wood shipments was no exception. Incidentally, the expressions of the "neutral" side--scientific representatives--were put forward during its course. It was this clash of opinions and comparison of different views of the meeting participants that permitted these problems to be seen in their entirety. And if no absolute truth was born, at least some truth occurred in this debate. Thus, these are the words.

Those Who Haul

The results of the first quarter of this year provide no great basis for satisfaction: the increased task on wood export was not fulfilled. It is natural that the representatives of all the agencies participating in this matter give different reasons for the sad interruption, simply speaking, attempting to lay blame on their partner. However, if this is rarely manifested at the "station-forest management" level in the form of direct conflicts on the principle "we are to blame ourselves," when discussing the problem at a high level, the conversation is much more argumentative.

When specialists of the Ministry of Railways talk one after the other, the following picture is drawn: the railroad workers recognize that a large part of responsibility for underfulfillment of the task in wood delivery is their fault--there are not enough rail cars, the wood is accumulated at railhead warehouses and that which is shipped moves much more slowly than it should. But. And then follows a series of "buts," each of which is reinforced by figures and each proves that the primary reason for all the difficulties experienced by transport is poor organization of work in the transport subdivisions of the client. All this sounds very convincing.

Are there not enough rail cars? But what good does it do if there are enough, say the railroad workers, if each stands idle 2.3 hours above the norm at the wood procurement terminals. And, moreover, how can one talk about a shortage if the workers of the wood procurement industry themselves ordered 16,500 rail cars less than needed and then refused an additional 9,000 and finally, did not load 20,500 rail cars on time among those delivered! (This is from the speech of the deputy chief of the Administration for Species Loading TsD [Central Dispatcher] L. Cheglakov).

Are the trains with forest products moving slowly? Naturally, since the level of routing is low (a total of 19.5 percent!). And if there are no block trains, there can be no express delivery. There are few block trains due to dispersion of orders for which the workers of Soyuzglavles [Main Administration for Interrepublic Logging and Woodworking] and due to the fact that there are too many terminals with low volume of loading--9,000 rail cars are sent from 2,500 stations. And this is on the conscience of the wood procurement agents.

The rail cars are poorly utilized and static loading is extremely low. Who is responsible for this? Of course, the consigners are. The volume of counter shipments is high--of course this is the fault of the planning organizations. In short, we railroad workers are guilty and we are delivering wood very poorly. But this is in general. And with respect to each specific terminal--this is the fault of our allies, the workers of the wood procurement industry. This is the essence of the position.

Of course, this position is vulnerable, just as the statement that all the blame lies with our "neighbors," and there are no complaints of any kind against us? However, it is rather difficult to argue with the railroad workers on specific questions. After all, they present not only figures, but also convincing examples as confirmation. During the course of a conversation on routing, M. Aleksandrov, the chief of routing of TsM [Central Routing] presented this example: not a single block train left Gidrostroitel' Station of the East Siberian Railroad from 1 through 7 February. Moreover, 20-30 or more rail cars were loaded daily here during this time and the wood in them was usually dispatched to 10-11 railroads--one or two rail cars to each. Why was it impossible to form up several block trains during this time? Simply because the Lesosnabsbyt Administration [Administration of Timber Supply] at Irkutsk did not provide a coordinating plan. And it was not known at the station where the wood would be dispatched even for the following day. And according to the regulations, Lesosnabsbyt should issue a coordinating plan for one month.

When the talk turns to packaging, it is also difficult to make claims here against the railroad workers if one listens, for example, to the arguments of V. Mazurov, a representative of the Administration on Container and Package Shipments. True, the fraction of package shipments of wood is extremely low among the total volume because there is a shortage of straps to form the packets. But can the transport workers be blamed for this? After all, straps are held for a long time by both the consignee and the consignor, are taken out of circulation for many excess days and for this reason there is a shortage of them. Incidentally, even if they were used with absolute efficiency, there would still not be enough of them. Industry does not produce straps and the MPS [Ministry of Railways] plants manufacture no more than a million annually at full production, while 3.5 million are required!

After this type of information, any irony with respect to the position of the railroad workers is absolutely uncalled for. What can they really do when their allies do not assist them?

However, all these "hard" arguments do not convince the representatives of Minlesprom [Ministry of the Timber and Wood Processing Industry]. And there is quite a different picture when the wood procurement agents speak, that is,

Those Who Load

The main theme of representatives of Minlesprom (formulated by the deputy chief of the Administration of the Wood Procurement Industry P. Khamyzhenkov) is this: do we have timber? We do. Thousands and millions of cubes have been accumulated in the lower warehouses. And there is no place to ship it because there are no rail cars. Whose rail cars? Those of the railroad workers. And that is the entire problem.

Everything remaining is said to confirm this main theme. For example, the railroad workers complain that the consignors operate poorly during holidays and do not assimilate rolling stock. The wood procurement agents reject this: how do you know how we work on our days off if you generally do not provide rail cars for us on these days? And here--one should pay attention to this!--the railroad workers have no rejoinder and do not prove that they deliver rail cars on Saturdays and Sundays the same as during weekdays. They find a different "counterargument": and why should we deliver them if you have no loaders?

During the course of the argument the wood procurement agents present arguments which sound no less convincing than those which the railroad workers presented. For us, said the chief of the Transport Administration of Minlesprom V. Ginzburg, a rail car is an organizing beginning, if you give us empties there will be loaders and the machinery will operate continuously and there is no sense talking about timber when we always have more than enough. And you remove the loaded rail car on time. After all, our people hurry and then the loaded rail car stands idle before their eyes for almost 24 hours.

With regard to static loads, our allies have no cause to make any complaints. Actually, the procurement agents say, the gondolas and flatcars frequently leave us not fully loaded. But countercomplaints are immediately advanced: what do you expect from us railroad friends when you frequently deliver boxcars for timber?! After all, to utilize rolling stock efficiently, it must be selected according to the product. Specialized rail cars are required and there are few of them and they are delivered poorly. Packets are necessary but no straps are provided for them, loading-unloading machinery is necessary but there is also not enough of it. And there cannot be enough with the present dispersion of loading: there is no sense in allocating a crane for days for one rail car. Incidentally, the latter complaint is not against the railroad workers.

It generally turns out that the wood consignors have more than enough "objective" difficulties and a large part of them is created by the railroad workers. This is that they do not efficiently distribute rolling stock, do not deliver it where it is primarily necessary, "spreading it out" a little everywhere. This is that they do not deliver a single rail car--literally not a one--during 220 days of the year to some enterprises of the timber industry. Achieving an increase in the level of routing, they frequently form up block trains only by designation: there have been cases when a "block train" was reworked every three kilometers!

"And this is all the fault of the orders," say the transport workers.

The arguments fly and the timber lies near the tracks--20 or more million cubic meters of lumber and an additional eight million cubic meters of twigs on the approach to the lower warehouses filled to capacity. And there are no rail cars. And this is the main thing. It is difficult to take objection to this.

What will come of this? The railroad workers are correct in their own way and the wood procurement agents are correct in their way, but who is guilty --the timber? When the consignor accumulates timber, the clients suffer.

Do there exist "objective" truths in wood shipment problems?

Let us return to the very beginning of the conversation. The railroad workers complain--and quite validly--about the poor utilization of rolling stock. The consignors do not fully load the rail cars and the consignees slowly free them. But what interferes with them? One only has to literally take "one small step" into this problem and it becomes clear that lack of coordination and the absence of a unified plan interfere. After all, if the consignors received the rolling stock which is most convenient for shipment of a given lot and if they received it in time at those terminals where it is especially necessary, they would be done with the matter and there would be no complaints against them at all. In any case, they would have no "objective" reasons for breakdowns and delays at all.

If the consignors found out in time when and how much timber would be arriving at their terminals, they would be able to prepare people and machinery and release the rail cars on time. Complaints could be leveled against them for which they would have nothing to answer for.

If the consignors and railroad workers had precise wood shipment plans, the transport workers would have to keep a stricter accounting for the low level of routing. The railroad workers now quite reasonably respond to all complaints: how can we form up block trains if we literally do not know the station of destination 24 hours before dispatching the rail car?

And so on and so on. When talking about countershipments--it is very clear that they are related to delays in planning. The conversation arose of the insufficient volume of timber delivery by water--it turns out that this is related to omissions in the plan. For many years timber shipments by water were carried out quite conscientiously, but as a result their volume has recently dropped considerably and especially rafting has been reduced. This trend is now being reviewed, but will it be reflected in the plans?

Professor V. Osipov also concentrated the attention of those participating in the meeting on planning problems. True, he began to talk about a quite specific type of planning--on the need to plan shipments by stations of destination. But the conversation involuntarily turned to the need to improve planning of timber shipments as a whole. And here the views of the representatives of all agencies coincided. There is a third important component in the "timber and transport" problem--the plan. Only a precise, unconditionally fulfilled long-term plan for shipments of forest products will permit "reconciliation" of the different sides and moreover, will permit joining of their efforts.

Many topics, many of which we did not touch on here--repair and preparation of rolling stock, providing incentives to the workers of related sectors and so on, were touched on in the round table meeting. But the main conclusion about which far from everyone talked directly but which everyone reached is that an effective plan is necessary. Not a plan which essentially provides only "deliver so much," but a plan of effective management which determines how much to deliver and when, where and from where, how and in what manner.

Shortcomings Detailed

Moscow GUDOK in Russian 17 Jun 80 p 2

[Article by V. Novikov, special correspondent of LESNAYA PROMYSHLENNOST', V. Sbitnev, special correspondent of GUDOK, and G. Simkin, special correspondent of VODNIY TRANSPORT: "Fast Delivery of Timber is the Responsibility of the Partners"]

[Text] Surprise visit of GUDOK, VODNYY TRANSPORT and LESNAYA PROMYSHLENNOST'

The managers of the Yenisey Shipping Line, the All-Union Association Krasnoyarsklesprom and the Krasnoyarsk Railroad signed a joint order. It is devoted to introducing the experience of the Leningrad Transport Workers and of strengthening the labor cooperation of related collectives engaged in shipment of Siberian wood. The practical use of a continuous schedule-plan, reduction of the idle times of the fleet and rail cars, acceleration of product delivery to clients and a reduction of transport delays are discussed in this important document. The Krasnoyarsk Party Regional Committee considered the joint measures of allied workers directed toward increasing their work efficiency and quality and approve them.

The timber navigation season started almost two months ago. To what extent have the partners acted in a responsible manner to timely support of the national economy with wood procured under the complex conditions of Siberia?

We were given a list at the beginning of our journey: by 5 June 1980 the enterprises of the Krasnoyarsklesprom Association [expansion unknown] underdelivered 32,000 tons of timber to the river workers, while the crossties delivered to Krasnoyarsk were unsatisfactory. According to the schedule, no less than 4,000 tons of wood is supposed to be transloaded from the ships to the rail cars daily at the docks of the timber transshipping combine, while the "record" figure has reached only 2,700 tons. Again, as in past years, motor ships and barges were deployed in the roadsteads to await handling.

The timber navigation season on the Yenisey River was begun this year unusually early despite the complex weather conditions and the cold and lingering spring. In March the Krasnoyarsk Pulp and Paper Combine began to experience an acute shortage of raw material and requested the river workers to assist them and to deliver timber on the section of the river free of ice. On 16 March the motor ship "Taseyevo" delivered the first barge to the dock of the Predivinskiy lespromkhoz and shipment of the wood was begun.

Unfortunately, the docks of the remaining lespromkhozes lying on the Yenisey--Bol'she-Murtinskiy, Kazachinskiy and Karginskiy--were not ready for the navigation season. The first barge approached the docks of the Krasnoyarsk Timber Transshipping Combine only on 13 April. Since this time, one can say, the continuous schedule-plan was begun. Before the beginning of May, the entire production chain mainly operated smoothly in full swing and the fleet was handled in 24 hours, part of the products were sent to the warehouse areas and the remaining was reloaded by the direct ship-rail car variant.

Breakdowns began on 3 May. There were 8-10 ships daily in the roadstead awaiting handling. The schedule was disrupted and there were not enough people for unloading and there was a shortage of rail cars. The Yenisey Shipping Line was forced to delay delivery of the ships to the docks of lespromkhozes and an attempt was made to artificially affect the situation.

But the number of floating warehouses increased and on the day of our surprise visit there were 15 more ships and barges already awaiting unloading and handling.

The traditional lack of rhythm of the timber navigation season began anew. During 1.5 months of operation, 81 ships were handled on the docks of the timber transshipping combine, 19 less than last year. Of them, 63 had idle times above the plan. The losses comprised 156,000 ton-days.

"We understand that the complaints of the river workers are valid," the deputy director of the Krasnoyarsk LPK [Timber transshipping combine] A. Bazhenov told us. "But not everything depends on us, the railroad workers, for example, regularly let us down and the schedules of rail car delivery are interrupted. There are also other factors of an internal nature or agency lack of coordination. Let us immediately show here truths that support each other."

The allied workers actually do not now find a common language and more and more frequently resort to arbitrage to resolve arguments. For example, a document was first signed that the fleet would be handled on four docks of the timber transshipping combine. It turned out during the navigation season that only three were in operation. Naturally, the river workers required that the ships be accepted on the fourth dock. In response, the managers of the combine began to dispute the competency of the document and took it to arbitration. Mountains of paper have already been written and much effort and energy has been given to clearing up relations. But the situation has not changed.

We observed how ships are loaded at the Kazachinskiy lespromkhoz. Lumber is not packaged, but is placed in the holds together with the crossties and slabs.

Such a poorly baked "pie" arrives at Krasnoyarsk and they do not know what to do with it. According to technology, a packet is supposed to be taken from the hold and loaded into the rail car. Like everything, a minimum of workers is required and the time of handling the ships and rail cars is reduced. A considerable part of the work must be performed manually here as well.

During these days three motor ships: the "Volgograd," the "Angarsk" and the "Karaganda"--approach the docks of the timber transshipping combine from the Piskunov timber terminal of the Kazachinskiy LPKh. All the products in them were loaded haphazardly.

The main quantity of crossties and other lumber is shipped to Krasnoyarsk for transshipping at the Yeniseylesosplav Association, under whose management the Strelkovaya LPV is located, and only an insignificant part of the products is packaged.

"There is not enough wire," complains the chief engineer of the association A. Kuchkin. "We ship only 120,000 of 460,000 cubic meters of lumber products processed here in packets."

The railroad workers did not deliver rail cars on time--this caused idle times of the fleet and brigades of loaders. The rail cars were delivered but were not in order and they were dispersed--again everythings was disorganized. A total of 1,320 ship-hours was lost in May due to interruption of the schedule for delivery of rolling stock to Yenisey Station. During the last month of the navigation season alone, 192 unsuitable cars were delivered for loading. Another "record" was set on 24 May. Of 16 rail cars delivered for timber transshipment, 24 were not in working order.

And how can lumber be loaded without tightening devices? The railroad workers are obligated to supply them to the wood procurement agents, but they underdelivered 9,000 tie devices in May--almost half the required amount. If one recalls construction complexes, the railroad generally does not transfer crossties and other products to their allied workers for unloading.

An ideal variant of unloading wood would be the following: Yenisey Station delivers rail cars of the types ordered on schedule--gondolas, boxcars and flatcars--to the three timber transshipment sidings. After loading is completed, the finished block train is immediately dispatched to the station of destination. There is nothing unrealistic in this version: with normal organization of matters, transshipment is capable of loading one block train per shift and the station is capable of forming it up and dispatching it to the client.

But we did not see this transport conveyor at Yenisey Station. Its tracks, in the worst sense of the word, were densely bottled up with rolling stock, including that with the wonderful Siberian timber. And tens of barges awaiting unloading are lying at anchor not far from these rail cars frozen to the rails.

"The traffic controllers of the Krasnoyarsk Division of the railroad very poorly assemble from the station rolling stock ready for dispatch," said the chief of station N. Redinov. "There are cases when they stand idle for 2-3 days. The fleet of rail cars at the station now exceeds the norm by a factor of three. Nothing can be said about shunting. Whereas we load an average of 170 rail cars per day, we dispatch only a little more than 100.

This is reality. In April, the idle times of rail cars at Yenisey Station, when timber only began to move on the river, exceeded 38 hours compared to a norm of 27 hours. In May, when the wood arrived for timber transshipment with the spring flood, the idle times were almost double the norm.

And here lack of coordination in the operations of allied workers brings much misfortune, causing lively penal activity of all participants of the transport process. Let us say, the timber transshipping combine ordered approximately 1,500 gondolas for the month--this is more than enough rolling stock. But instead it received more than 1,700 container carriers which had no place in the plan at all.

The managers of Yenisey Station feel that it would not hurt timber transshipping if there were two additional reserve tracks on the third section. The empties could be sent there for the days of greatest loads. And then the railroad workers would not delay delivery to the loading front if rail cars were available. But it is even more important, they feel, to solve another problem. We are talking about joining the sidings of the river port and the timber transshipping combine. More than 200 empty rail cars are left every day in the river port. Diesel switching locomotives route them through the much suffering Yenisey Station on detours up to five kilometers to the sidings of the enterprises, including the timber transshipping enterprises, intensifying the commotion at the "connecting" stations. Direct shipment of empties from the port to the combine would first permit a single locomotive to service two enterprises, whereas now two and sometimes three are engaged in this; second, the station would be freed of excess work and concerns.

The situation with shipments and transshipment of timber and lumber continues to remain serious even now. Fulfillment of the second-quarter plan is threatened. Obviously, the main thing today for all partners of the transport process is to recall the responsibility for the pledges that they adopted.

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